NODE=S041

$B^{\pm}$

$I(J^P) = \frac{1}{2}(0^-)$

Quantum numbers not measured. Values shown are quark-model predictions. NODE=S041

See also the $B^{\pm}/B^0$ ADMIXTURE and $B^{\pm}/B^0/B^0_s/b$-baryon ADMIXTURE sections.

$B^{\pm}$ MASS

NODE=S041M

The fit uses m_{B^+}, $(m_{B^0} - m_{B^+})$, and m_{B^0} to determine m_{B^+}, m_{B^0}, and the mass difference. NODE=S041M

NODE=S041M

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*	
5279.41±0.07 OUR FIT						
5279.42±0.08 OUR AVERAGE						
5279.44±0.05±0.07		[1] AAIJ	23Q	LHCB	pp at 7, 8, 13 TeV	
5279.38±0.11±0.33		[2] AAIJ	12E	LHCB	pp at 7 TeV	
5279.10±0.41±0.36		[3] ACOSTA	06	CDF	$p\overline{p}$ at 1.96 TeV	
5279.1 ±0.4 ±0.4	526	[4] CSORNA	00	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$	
5279.1 ±1.7 ±1.4	147	ABE	96B	CDF	$p\overline{p}$ at 1.8 TeV	
• • • We do not use the following data for averages, fits, limits, etc. • • •						
5278.8 ±0.54±2.0	362	ALAM	94	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$	SYCLP=A
5278.3 ±0.4 ±2.0		BORTOLETTO	92	CLEO	$e^+e^- \rightarrow \Upsilon(4S)$	SYCLP=A
5280.5 ±1.0 ±2.0		[5] ALBRECHT	90J	ARG	$e^+e^- \rightarrow \Upsilon(4S)$	SYCLP=A
5275.8 ±1.3 ±3.0	32	ALBRECHT	87C	ARG	$e^+e^- \rightarrow \Upsilon(4S)$	
5278.2 ±1.8 ±3.0	12	[6] ALBRECHT	87D	ARG	$e^+e^- \rightarrow \Upsilon(4S)$	
5278.6 ±0.8 ±2.0		BEBEK	87	CLEO	$e^+e^- \rightarrow \Upsilon(4S)$	SYCLP=A

[1] Uses $B^+ \rightarrow J/\psi \overline{\Lambda} p$ decays. NODE=S041M;LINKAGE=E

[2] Uses $B^+ \rightarrow J/\psi K^+$ fully reconstructed decays. NODE=S041M;LINKAGE=AA

[3] Uses exclusively reconstructed final states containing a $J/\psi \rightarrow \mu^+\mu^-$ decays. NODE=S041M;LINKAGE=AT

[4] CSORNA 00 uses fully reconstructed 526 $B^+ \rightarrow J/\psi^{(\prime)} K^+$ events and invariant masses without beam constraint. NODE=S041M;LINKAGE=N1

[5] ALBRECHT 90J assumes 10580 for $\Upsilon(4S)$ mass. Supersedes ALBRECHT 87C and ALBRECHT 87D. NODE=S041M;LINKAGE=BQ

[6] Found using fully reconstructed decays with $J/\psi(1S)$. ALBRECHT 87D assume $m_{\Upsilon(4S)}$ = 10577 MeV. NODE=S041M;LINKAGE=D

$B^{\pm}$ MEAN LIFE

NODE=S041T

See $B^{\pm}/B^0/B^0_s/b$-baryon ADMIXTURE section for data on B-hadron mean life averaged over species of bottom particles. NODE=S041T

NODE=S041T

VALUE (10^{-12} s)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*	
1.638±0.004 OUR EVALUATION		(Produced by HFLAV)				→ UNCHECKED ←
1.637±0.004±0.003		AAIJ	14E	LHCB	pp at 7 TeV	
1.639±0.009±0.009		[1] AALTONEN	11	CDF	$p\overline{p}$ at 1.96 TeV	
1.663±0.023±0.015		[2] AALTONEN	11B	CDF	$p\overline{p}$ at 1.96 TeV	
1.635±0.011±0.011		[3] ABE	05B	BELL	$e^+e^- \rightarrow \Upsilon(4S)$	
1.624±0.014±0.018		[4] ABDALLAH	04E	DLPH	$e^+e^- \rightarrow Z$	
1.636±0.058±0.025		[5] ACOSTA	02C	CDF	$p\overline{p}$ at 1.8 TeV	
1.673±0.032±0.023		[6] AUBERT	01F	BABR	$e^+e^- \rightarrow \Upsilon(4S)$	
1.648±0.049±0.035		[7] BARATE	00R	ALEP	$e^+e^- \rightarrow Z$	
1.643±0.037±0.025		[8] ABBIENDI	99J	OPAL	$e^+e^- \rightarrow Z$	
$1.637\pm0.058{}^{+0.045}_{-0.043}$		[7] ABE	98Q	CDF	$p\overline{p}$ at 1.8 TeV	
1.66 ±0.06 ±0.03		[8] ACCIARRI	98S	L3	$e^+e^- \rightarrow Z$	
1.66 ±0.06 ±0.05		[8] ABE	97J	SLD	$e^+e^- \rightarrow Z$	
$1.58\ {}^{+0.21}_{-0.18}\ {}^{+0.04}_{-0.03}$	94	[5] BUSKULIC	96J	ALEP	$e^+e^- \rightarrow Z$	OCCUR=3
1.61 ±0.16 ±0.12		[7,9] ABREU	95Q	DLPH	$e^+e^- \rightarrow Z$	
1.72 ±0.08 ±0.06		[10] ADAM	95	DLPH	$e^+e^- \rightarrow Z$	
1.52 ±0.14 ±0.09		[7] AKERS	95T	OPAL	$e^+e^- \rightarrow Z$	

• • • We do not use the following data for averages, fits, limits, etc. • • •

$1.695 \pm 0.026 \pm 0.015$		[6] ABE	02H	BELL	Repl. by ABE 05B
$1.68 \pm 0.07 \pm 0.02$		[5] ABE	98B	CDF	Repl. by ACOSTA 02C
$1.56 \pm 0.13 \pm 0.06$		[7] ABE	96C	CDF	Repl. by ABE 98Q
$1.58 \pm 0.09 \pm 0.03$		[11] BUSKULIC	96J	ALEP	$e^+ e^- \rightarrow Z$
$1.58 \pm 0.09 \pm 0.04$		[7] BUSKULIC	96J	ALEP	Repl. by BARATE 00R
1.70 ± 0.09		[12] ADAM	95	DLPH	$e^+ e^- \rightarrow Z$
$1.61 \pm 0.16 \pm 0.05$	148	[5] ABE	94D	CDF	Repl. by ABE 98B
$1.30 {}^{+0.33}_{-0.29} \pm 0.16$	92	[7] ABREU	93D	DLPH	Sup. by ABREU 95Q
$1.56 \pm 0.19 \pm 0.13$	134	[10] ABREU	93G	DLPH	Sup. by ADAM 95
$1.51 {}^{+0.30}_{-0.28} {}^{+0.12}_{-0.14}$	59	[7] ACTON	93C	OPAL	Sup. by AKERS 95T
$1.47 {}^{+0.22}_{-0.19} {}^{+0.15}_{-0.14}$	77	[7] BUSKULIC	93D	ALEP	Sup. by BUSKULIC 96J

OCCUR=2
OCCUR=2

[1] Measured mean life using fully reconstructed decays ($J/\psi K^{(*)}$). NODE=S041T;LINKAGE=AA

[2] Measured using $B^- \rightarrow D^0 \pi^-$ with $D^0 \rightarrow K^- \pi^+$ events that were selected using a silicon vertex trigger. NODE=S041T;LINKAGE=AL

[3] Measurement performed using a combined fit of CP-violation, mixing and lifetimes. NODE=S041T;LINKAGE=AE

[4] Measurement performed using an inclusive reconstruction and B flavor identification technique. NODE=S041T;LINKAGE=AB

[5] Measured mean life using fully reconstructed decays. NODE=S041T;LINKAGE=CD

[6] Events are selected in which one B meson is fully reconstructed while the second B meson is reconstructed inclusively. NODE=S041T;LINKAGE=FT

[7] Data analyzed using $D/D^* \ell X$ event vertices. NODE=S041T;LINKAGE=C

[8] Data analyzed using charge of secondary vertex. NODE=S041T;LINKAGE=M

[9] ABREU 95Q assumes B($B^0 \rightarrow D^{**-} \ell^+ \nu_\ell$) = 3.2 ± 1.7%. NODE=S041T;LINKAGE=CQ

[10] Data analyzed using vertex-charge technique to tag B charge. NODE=S041T;LINKAGE=F

[11] Combined result of $D/D^* \ell X$ analysis and fully reconstructed B analysis. NODE=S041T;LINKAGE=GC

[12] Combined ABREU 95Q and ADAM 95 result. NODE=S041T;LINKAGE=K

τ_{B^+}/τ_{B^-}

NODE=S041DT
NODE=S041DT

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
1.002±0.004±0.002	[1] AAIJ	14E	LHCB	pp at 7 TeV

[1] Measured using $B^{\pm} \rightarrow J/\psi K^{\pm}$ decays. NODE=S041DT;LINKAGE=A

B^+ DECAY MODES

NODE=S041210;NODE=S041

B^- modes are charge conjugates of the modes below. Modes which do not identify the charge state of the B are listed in the $B^{\pm}/B^0$ ADMIXTURE section.

NODE=S041

The branching fractions listed below assume 50% $B^0 \overline{B}^0$ and 50% $B^+ B^-$ production at the $\Upsilon(4S)$. We have attempted to bring older measurements up to date by rescaling their assumed $\Upsilon(4S)$ production ratio to 50:50 and their assumed D, D_s, D^*, and ψ branching ratios to current values whenever this would affect our averages and best limits significantly.

Indentation is used to indicate a subchannel of a previous reaction. All resonant subchannels have been corrected for resonance branching fractions to the final state so the sum of the subchannel branching fractions can exceed that of the final state.

For inclusive branching fractions, *e.g.,* $B \rightarrow D^{\pm} X$, the values usually are multiplicities, not branching fractions. They can be greater than one.

	Mode		Fraction (Γ_i/Γ)	Scale factor/ Confidence level	
	Semileptonic and leptonic modes				NODE=S041;CLUMP=A
Γ_1	$\ell^+ \nu_\ell X$	[a]	(10.99 ± 0.28) %		DESIG=220
Γ_2	$e^+ \nu_e X_c$		(10.8 ± 0.4) %		DESIG=473
Γ_3	$e^+ \nu_e X$		(10.8 ± 2.7) %		DESIG=814
Γ_4	$\mu^+ \nu_\mu X$		(11.3 ± 3.5) %		DESIG=813
Γ_5	$\ell^+ \nu_\ell X_u$	[a]	(1.65 ± 0.21) $\times 10^{-3}$		DESIG=768
Γ_6	$D \ell^+ \nu_\ell X$	[a]	(9.0 ± 0.6) %		DESIG=485
Γ_7	$\overline{D}^0 \ell^+ \nu_\ell$	[a]	(2.26 ± 0.07) %		DESIG=145
Γ_8	$\tau^+ \nu_\tau X$		(2.5 ± 0.4) %		DESIG=812
Γ_9	$\overline{D}^0 \tau^+ \nu_\tau$		(7.7 ± 2.5) $\times 10^{-3}$		DESIG=498

Γ_{10}	$\overline{D}^*(2007)^0 \ell^+ \nu_\ell$	[a]	$(5.26 \pm 0.10)\ \%$		DESIG=146
Γ_{11}	$\overline{D}^*(2007)^0 e^+ \nu_e$				DESIG=787
Γ_{12}	$\overline{D}^*(2007)^0 \mu^+ \nu_\mu$				DESIG=788
Γ_{13}	$\overline{D}^*(2007)^0 \tau^+ \nu_\tau$		$(1.88 \pm 0.20)\ \%$		DESIG=499
Γ_{14}	$D^{(*)} \mathrm{n}\pi \ell^+ \nu_\ell (\mathrm{n} \geq 1)$	[a]	$(1.74 \pm 0.23)\ \%$		DESIG=505
Γ_{15}	$D^- \pi^+ \ell^+ \nu_\ell$	[a]	$(3.82 \pm 0.20) \times 10^{-3}$		DESIG=418
Γ_{16}	$\overline{D}_2^*(2460)^0 \ell^+ \nu_\ell$, $\overline{D}_2^{*0} \to D^- \pi^+$	[a]	$(1.59 \pm 0.10) \times 10^{-3}$		DESIG=504
Γ_{17}	$\overline{D}_0^*(2420)^0 \ell^+ \nu_\ell$, $\overline{D}_0^{*0} \to D^- \pi^+$	[a]	$(9 \pm 5) \times 10^{-4}$	S=2.6	DESIG=503
Γ_{18}	$D^{*-} \pi^+ \ell^+ \nu_\ell$	[a]	$(5.42 \pm 0.28) \times 10^{-3}$		DESIG=419
Γ_{19}	$\overline{D}_1(2420)^0 \ell^+ \nu_\ell$, $\overline{D}_1^0 \to D^{*-} \pi^+$	[a]	$(2.84 \pm 0.17) \times 10^{-3}$	S=1.1	DESIG=257
Γ_{20}	$\overline{D}_1'(2430)^0 \ell^+ \nu_\ell$, $\overline{D}_1'^0 \to D^{*-} \pi^+$	[a]	$(1.7 \pm 0.6) \times 10^{-3}$	S=1.8	DESIG=502
Γ_{21}	$\overline{D}_2^*(2460)^0 \ell^+ \nu_\ell$, $\overline{D}_2^{*0} \to D^{*-} \pi^+$	[a]	$(1.06 \pm 0.18) \times 10^{-3}$	S=1.7	DESIG=258
Γ_{22}	$\overline{D}_1(2420)^0 \tau^+ \nu_\tau$				DESIG=848
Γ_{23}	$\overline{D}_2^*(2460)^0 \tau^+ \nu_\tau$				DESIG=849
Γ_{24}	$\overline{D}^0 \pi^+ \pi^- \ell^+ \nu_\ell$	[a]	$(1.73 \pm 0.19) \times 10^{-3}$		DESIG=649
Γ_{25}	$\overline{D}_1(2420)^0 \ell^+ \nu_\ell$, $\overline{D}_1^0 \to \overline{D}^0 \pi^+ \pi^-$	[a]	$(1.05 \pm 0.14) \times 10^{-3}$		DESIG=783
Γ_{26}	$\overline{D}^{*0} \pi^+ \pi^- \ell^+ \nu_\ell$	[a]	$(7.0 \pm 1.7) \times 10^{-4}$		DESIG=650
Γ_{27}	$D_s^{(*)-} K^+ \ell^+ \nu_\ell$	[a]	$(6.1 \pm 1.0) \times 10^{-4}$		DESIG=616
Γ_{28}	$D_s^- K^+ \ell^+ \nu_\ell$	[a]	$(3.0 {}^{+1.4}_{-1.2}) \times 10^{-4}$		DESIG=600
Γ_{29}	$D_s^{*-} K^+ \ell^+ \nu_\ell$	[a]	$(2.9 \pm 1.9) \times 10^{-4}$		DESIG=571
Γ_{30}	$\pi^0 \ell^+ \nu_\ell$	[a]	$(7.80 \pm 0.27) \times 10^{-5}$		DESIG=417
Γ_{31}	$\pi^0 e^+ \nu_e$				DESIG=138
Γ_{32}	$\eta \ell^+ \nu_\ell$	[a]	$(3.5 \pm 0.4) \times 10^{-5}$		DESIG=327
Γ_{33}	$\eta' \ell^+ \nu_\ell$	[a]	$(2.4 \pm 0.7) \times 10^{-5}$		DESIG=479
Γ_{34}	$\omega \ell^+ \nu_\ell$	[a]	$(1.19 \pm 0.09) \times 10^{-4}$		DESIG=173
Γ_{35}	$\omega \mu^+ \nu_\mu$				DESIG=150
Γ_{36}	$\rho^0 \ell^+ \nu_\ell$	[a]	$(1.58 \pm 0.11) \times 10^{-4}$		DESIG=174
Γ_{37}	$\pi^+ \pi^- \ell^+ \nu_\ell$	[a]	$(2.3 \pm 0.4) \times 10^{-4}$		DESIG=767
Γ_{38}	$p \overline{p} \ell^+ \nu_\ell$	[a]	$(5.8 {}^{+2.6}_{-2.3}) \times 10^{-6}$		DESIG=630
Γ_{39}	$p \overline{p} \mu^+ \nu_\mu$		$(5.32 \pm 0.33) \times 10^{-6}$		DESIG=631
Γ_{40}	$p \overline{p} e^+ \nu_e$		$(8.2 {}^{+4.0}_{-3.3}) \times 10^{-6}$		DESIG=319
Γ_{41}	$e^+ \nu_e$		$< 9.8 \times 10^{-7}$	CL=90%	DESIG=182
Γ_{42}	$\mu^+ \nu_\mu$		$< 8.6 \times 10^{-7}$	CL=90%	DESIG=183
Γ_{43}	$\tau^+ \nu_\tau$		$(1.09 \pm 0.24) \times 10^{-4}$	S=1.2	DESIG=184
Γ_{44}	$\ell^+ \nu_\ell \gamma$	[a]	$< 3.0 \times 10^{-6}$	CL=90%	DESIG=547
Γ_{45}	$e^+ \nu_e \gamma$		$< 4.3 \times 10^{-6}$	CL=90%	DESIG=234
Γ_{46}	$\mu^+ \nu_\mu \gamma$		$< 3.4 \times 10^{-6}$	CL=90%	DESIG=235
Γ_{47}	$\mu^+ \mu^- \mu^+ \nu_\mu$		$< 1.6 \times 10^{-8}$	CL=95%	DESIG=729

Inclusive modes NODE=S041;CLUMP=J

Γ_{48}	$D^0 X$	$(8.6 \pm 0.7)\ \%$		DESIG=380
Γ_{49}	$\overline{D}^0 X$	$(79 \pm 4)\ \%$		DESIG=381
Γ_{50}	$D^+ X$	$(2.5 \pm 0.5)\ \%$		DESIG=382
Γ_{51}	$D^- X$	$(9.9 \pm 1.2)\ \%$		DESIG=383
Γ_{52}	$D_s^+ X$	$(7.9 {}^{+1.4}_{-1.3})\ \%$		DESIG=384
Γ_{53}	$D_s^- X$	$(1.10 {}^{+0.40}_{-0.32})\ \%$		DESIG=385
Γ_{54}	$\Lambda_c^+ X$	$(2.1 {}^{+0.9}_{-0.6})\ \%$		DESIG=386
Γ_{55}	$\overline{\Lambda}_c^- X$	$(2.8 {}^{+1.1}_{-0.9})\ \%$		DESIG=387
Γ_{56}	$\overline{c} X$	$(97 \pm 4)\ \%$		DESIG=388
Γ_{57}	$c X$	$(23.4 {}^{+2.2}_{-1.8})\ \%$		DESIG=389
Γ_{58}	$c / \overline{c} X$	$(120 \pm 6)\ \%$		DESIG=390

D, D^*, or D_s modes

NODE=S041;CLUMP=B

Γ_{59}	$\overline{D}^0 \pi^+$		$(4.61 \pm 0.10) \times 10^{-3}$		DESIG=1
Γ_{60}	$D_{CP(+1)} \pi^+$	[b]	$(2.04 \pm 0.20) \times 10^{-3}$		DESIG=314
Γ_{61}	$D_{CP(-1)} \pi^+$	[b]	$(2.1 \pm 0.4) \times 10^{-3}$		DESIG=315
Γ_{62}	$\overline{D}^0 \rho^+$		$(9.7 \pm 1.1) \times 10^{-3}$	S=2.1	DESIG=25
Γ_{63}	$\overline{D}^0 K^+$		$(3.64 \pm 0.15) \times 10^{-4}$		DESIG=256
Γ_{64}	$D_{CP(+1)} K^+$	[b]	$(1.81 \pm 0.08) \times 10^{-4}$		DESIG=316
Γ_{65}	$D_{CP(-1)} K^+$	[b]	$(2.04 \pm 0.13) \times 10^{-4}$		DESIG=317
Γ_{66}	$D^0 K^+$		$(3.60 \pm 0.24) \times 10^{-6}$		DESIG=724
Γ_{67}	$[K^- \pi^+]_D K^+$	[c]	$< 2.8 \times 10^{-7}$	CL=90%	DESIG=358
Γ_{68}	$[K^+ \pi^-]_D K^+$	[c]	$< 1.6 \times 10^{-5}$	CL=90%	DESIG=359
Γ_{69}	$[K^- \pi^+ \pi^0]_D K^+$		seen		DESIG=480;OUR EVAL;→ UNCHECKED ←
Γ_{70}	$[K^+ \pi^- \pi^0]_D K^+$		seen		DESIG=481;OUR EVAL;→ UNCHECKED ←
Γ_{71}	$[K^- \pi^+ \pi^+ \pi^-]_D K^+$		seen		DESIG=624;OUR EVAL;→ UNCHECKED ←
Γ_{72}	$[K^+ \pi^- \pi^+ \pi^-]_D K^+$		seen		DESIG=625;OUR EVAL;→ UNCHECKED ←
Γ_{73}	$[\pi^+ \pi^+ \pi^- \pi^-] K^+$				DESIG=689
Γ_{74}	$[\pi^+ \pi^- \pi^+ \pi^-]_D K^*(892)^+$				DESIG=714
Γ_{75}	$[K^- \pi^+]_D K^*(892)^+$	[c]			DESIG=425
Γ_{76}	$[K^+ \pi^-]_D K^*(892)^+$	[c]			DESIG=426
Γ_{77}	$[K^- \pi^+ \pi^- \pi^+]_D K^*(892)^+$				DESIG=713
Γ_{78}	$[K^+ \pi^- \pi^+ \pi^-]_D K^*(892)^+$				DESIG=712
Γ_{79}	$[K^- \pi^+]_D \pi^+$	[c]	$(6.3 \pm 1.1) \times 10^{-7}$		DESIG=399
Γ_{80}	$[K^+ \pi^-]_D \pi^+$		$(1.72 \pm 0.30) \times 10^{-4}$		DESIG=533
Γ_{81}	$[K^- \pi^+ \pi^0]_D \pi^+$		seen		DESIG=628;OUR EVAL;→ UNCHECKED ←
Γ_{82}	$[K^+ \pi^- \pi^0]_D \pi^+$		seen		DESIG=629;OUR EVAL;→ UNCHECKED ←
Γ_{83}	$[K^- \pi^+ \pi^+ \pi^-]_D \pi^+$		seen		DESIG=626;OUR EVAL;→ UNCHECKED ←
Γ_{84}	$[K^+ \pi^- \pi^+ \pi^-]_D \pi^+$		seen		DESIG=627;OUR EVAL;→ UNCHECKED ←
Γ_{85}	$([K^- \pi^+]_D \pi^0)_{D^*} \pi^+$				DESIG=557
Γ_{86}	$([K^+ \pi^-]_D \pi^0)_{D^*} \pi^+$				DESIG=558
Γ_{87}	$([K^- \pi^+]_D \gamma)_{D^*} \pi^+$				DESIG=559
Γ_{88}	$([K^+ \pi^-]_D \gamma)_{D^*} \pi^+$				DESIG=560
Γ_{89}	$([K^- \pi^+]_D \pi^0)_{D^*} K^+$				DESIG=561
Γ_{90}	$([K^+ \pi^-]_D \pi^0)_{D^*} K^+$				DESIG=562
Γ_{91}	$([K^- \pi^+]_D \gamma)_{D^*} K^+$				DESIG=563
Γ_{92}	$([K^+ \pi^-]_D \gamma)_{D^*} K^+$				DESIG=564
Γ_{93}	$[\pi^+ \pi^- \pi^0]_D K^-$		$(4.6 \pm 0.9) \times 10^{-6}$		DESIG=420
Γ_{94}	$[K^0_S K^+ \pi^-]_D K^+$		seen		DESIG=635;OUR EVAL;→ UNCHECKED ←
Γ_{95}	$[K^*(892)^- K^+]_D K^+$				DESIG=748
Γ_{96}	$[K^0_S K^- \pi^+]_D K^+$		seen		DESIG=637;OUR EVAL;→ UNCHECKED ←
Γ_{97}	$[K^*(892)^+ K^-]_D K^+$		seen		DESIG=638;OUR EVAL;→ UNCHECKED ←
Γ_{98}	$[K^0_S K^- \pi^+]_D \pi^+$		seen		DESIG=639;OUR EVAL;→ UNCHECKED ←
Γ_{99}	$[K^*(892)^+ K^-]_D \pi^+$		seen		DESIG=640;OUR EVAL;→ UNCHECKED ←
Γ_{100}	$[K^0_S K^+ \pi^-]_D \pi^+$		seen		DESIG=641;OUR EVAL;→ UNCHECKED ←
Γ_{101}	$[K^*(892)^- K^+]_D \pi^+$		seen		DESIG=642;OUR EVAL;→ UNCHECKED ←
Γ_{102}	$[K^+ K^- \pi^0]_D K^+$				DESIG=669
Γ_{103}	$[K^+ K^- \pi^0]_D \pi^+$				DESIG=670
Γ_{104}	$[\pi^+ \pi^- \pi^0]_D K^+$				DESIG=671
Γ_{105}	$[\pi^+ \pi^- \pi^0]_D \pi^+$				DESIG=672
Γ_{106}	$\overline{D}^0 K^*(892)^+$		$(5.3 \pm 0.4) \times 10^{-4}$		DESIG=279
Γ_{107}	$D_{CP(-1)} K^*(892)^+$	[b]	$(2.7 \pm 0.8) \times 10^{-4}$		DESIG=423
Γ_{108}	$D_{CP(+1)} K^*(892)^+$	[b]	$(6.2 \pm 0.7) \times 10^{-4}$		DESIG=424
Γ_{109}	$D^0 K^*(892)^+$		$(5.4 {}^{+1.8}_{-4.0}) \times 10^{-6}$		DESIG=725
Γ_{110}	$\overline{D}^0 K^+ \pi^+ \pi^-$		$(5.2 \pm 2.1) \times 10^{-4}$		DESIG=601
Γ_{111}	$[K^+ \pi^-]_D K^+ \pi^- \pi^+$				DESIG=673
Γ_{112}	$[K^- \pi^+]_D K^+ \pi^- \pi^+$				DESIG=674
Γ_{113}	$D_{CP(+1)} K^+ \pi^- \pi^+$				DESIG=675
Γ_{114}	$\overline{D}^0 K^+ \overline{K}^0$		$(3.73 \pm 0.34) \times 10^{-4}$		DESIG=286
Γ_{115}	$\overline{D}^0 K^+ \overline{K}^*(892)^0$		$(7.2 \pm 0.5) \times 10^{-4}$		DESIG=288

Γ_{116}	$\overline{D}^0\pi^+\pi^+\pi^-$		$(5.5 \pm 2.0) \times 10^{-3}$	S=3.6	DESIG=165
Γ_{117}	$[K^-\pi^+]_D\pi^+\pi^-\pi^+$				DESIG=676
Γ_{118}	$\overline{D}^0\pi^+\pi^+\pi^-$ nonresonant		$(5 \pm 4) \times 10^{-3}$		DESIG=166
Γ_{119}	$\overline{D}^0\pi^+\rho^0$		$(4.2 \pm 3.0) \times 10^{-3}$		DESIG=167
Γ_{120}	$\overline{D}^0 a_1(1260)^+$		$(4 \pm 4) \times 10^{-3}$		DESIG=168
Γ_{121}	$\overline{D}^0\omega\pi^+$		$(4.1 \pm 0.9) \times 10^{-3}$		DESIG=276
Γ_{122}	$D^*(2010)^-\pi^+\pi^+$		$(1.35 \pm 0.22) \times 10^{-3}$		DESIG=2
Γ_{123}	$D^*(2010)^- K^+\pi^+$		$(8.2 \pm 1.4) \times 10^{-5}$		DESIG=705
Γ_{124}	$\overline{D}_1(2420)^0\pi^+$, $\overline{D}{}^0_1 \to D^*(2010)^-\pi^+$		$(8.4 \pm 1.5) \times 10^{-4}$		DESIG=580
Γ_{125}	$D^-\pi^+\pi^+$		$(1.07 \pm 0.05) \times 10^{-3}$		DESIG=14
Γ_{126}	$D^- K^+\pi^+$		$(7.7 \pm 0.5) \times 10^{-5}$		DESIG=665
Γ_{127}	$D_0^*(2300)^0 K^+$, $D_0^{*0} \to D^-\pi^+$		$(6.1 \pm 2.4) \times 10^{-6}$		DESIG=666
Γ_{128}	$D_2^*(2460)^0 K^+$, $D_2^{*0} \to D^-\pi^+$		$(2.32 \pm 0.23) \times 10^{-5}$		DESIG=668
Γ_{129}	$D_1^*(2760)^0 K^+$, $D_1^{*0} \to D^-\pi^+$		$(3.6 \pm 1.2) \times 10^{-6}$		DESIG=667
Γ_{130}	$D^+ K^0$		$< 2 \times 10^{-6}$	CL=90%	DESIG=398
Γ_{131}	$D^+ K^+\pi^-$		$(5.6 \pm 1.1) \times 10^{-6}$		DESIG=687
Γ_{132}	$D^+\eta$		$< 1.2 \times 10^{-5}$	CL=90%	DESIG=778
Γ_{133}	$D_2^*(2460)^0 K^+$, $D_2^{*0} \to D^+\pi^-$		$< 6.3 \times 10^{-7}$	CL=90%	DESIG=688
Γ_{134}	$D^+ K^{*0}$		$< 4.9 \times 10^{-7}$	CL=90%	DESIG=565
Γ_{135}	$D^+\overline{K}^{*0}$		$< 1.4 \times 10^{-6}$	CL=90%	DESIG=614
Γ_{136}	$\overline{D}^*(2007)^0\pi^+$		$(5.17 \pm 0.15) \times 10^{-3}$		DESIG=15
Γ_{137}	$\overline{D}^{*0}_{CP(+1)}\pi^+$	[d]	$(2.9 \pm 0.6) \times 10^{-3}$		DESIG=432
Γ_{138}	$D^{*0}_{CP(-1)}\pi^+$	[d]	$(2.6 \pm 1.0) \times 10^{-3}$		DESIG=441
Γ_{139}	$\overline{D}^*(2007)^0\omega\pi^+$		$(4.5 \pm 1.2) \times 10^{-3}$		DESIG=275
Γ_{140}	$\overline{D}^*(2007)^0\rho^+$		$(9.8 \pm 1.7) \times 10^{-3}$		DESIG=169
Γ_{141}	$\overline{D}^*(2007)^0 K^+$		$(4.19 {}^{+0.31}_{-0.28}) \times 10^{-4}$		DESIG=270
Γ_{142}	$\overline{D}^{*0}_{CP(+1)} K^+$	[d]	$(2.75 \pm 0.35) \times 10^{-4}$		DESIG=433
Γ_{143}	$\overline{D}^{*0}_{CP(-1)} K^+$	[d]	$(2.31 \pm 0.31) \times 10^{-4}$		DESIG=442
Γ_{144}	$D^*(2007)^0 K^+$		$(4.5 \pm 1.2) \times 10^{-6}$		DESIG=726
Γ_{145}	$\overline{D}^*(2007)^0 K^*(892)^+$		$(8.1 \pm 1.4) \times 10^{-4}$		DESIG=280
Γ_{146}	$\overline{D}^*(2007)^0 K^+\overline{K}^0$		$(2.9 \pm 0.6) \times 10^{-4}$		DESIG=287
Γ_{147}	$\overline{D}^*(2007)^0 K^+\overline{K}^*(892)^0$		$(1.23 \pm 0.14) \times 10^{-3}$		DESIG=289
Γ_{148}	$\overline{D}^*(2007)^0\pi^+\pi^+\pi^-$		(1.03 ± 0.12) %		DESIG=211
Γ_{149}	$\overline{D}^*(2007)^0 a_1(1260)^+$		(1.9 ± 0.5) %		DESIG=221
Γ_{150}	$\overline{D}^*(2007)^0\pi^-\pi^+\pi^+\pi^0$		(1.8 ± 0.4) %		DESIG=274
Γ_{151}	$\overline{D}^{*0} 3\pi^+ 2\pi^-$		$(5.7 \pm 1.2) \times 10^{-3}$		DESIG=379
Γ_{152}	$D^*(2010)^+\pi^0$		$< 3.6 \times 10^{-6}$		DESIG=240
Γ_{153}	$D^*(2010)^+ K^0$		$< 9.0 \times 10^{-6}$	CL=90%	DESIG=269
Γ_{154}	$D^*(2010)^-\pi^+\pi^+\pi^0$		(1.5 ± 0.7) %		DESIG=12
Γ_{155}	$D^*(2010)^-\pi^+\pi^+\pi^+\pi^-$		$(2.6 \pm 0.4) \times 10^{-3}$		DESIG=141
Γ_{156}	$\overline{D}^{**0}\pi^+$	[e]	$(5.6 \pm 1.2) \times 10^{-3}$		DESIG=464
Γ_{157}	$\overline{D}_1^*(2420)^0\pi^+$		$(1.5 \pm 0.6) \times 10^{-3}$	S=1.3	DESIG=214
Γ_{158}	$\overline{D}_1(2420)^0\pi^+ \times$ B($\overline{D}{}^0_1 \to \overline{D}^0\pi^+\pi^-$)		$(2.5 {}^{+1.6}_{-1.4}) \times 10^{-4}$	S=3.8	DESIG=443
Γ_{159}	$\overline{D}_1(2420)^0\pi^+ \times$ B($\overline{D}{}^0_1 \to \overline{D}^0\pi^+\pi^-$ (nonresonant))		$(2.2 \pm 0.9) \times 10^{-4}$		DESIG=579
Γ_{160}	$\overline{D}_1(2430)^0\pi^+$, $\overline{D}{}^0_1 \to D^*(2010)^-\pi^+$		$(3.5 \pm 0.6) \times 10^{-4}$		DESIG=739
Γ_{161}	$\overline{D}(2550)^0\pi^+$, $\overline{D}^0 \to D^*(2010)^-\pi^+$		$(7.2 \pm 1.4) \times 10^{-5}$		DESIG=740
Γ_{162}	$\overline{D}_J^*(2600)^0\pi^+$, $\overline{D}_J^{*0} \to D^*(2010)^-\pi^+$		$(6.8 \pm 1.3) \times 10^{-5}$		DESIG=741
Γ_{163}	$\overline{D}_2^*(2462)^0\pi^+$, $\overline{D}_2^{*0} \to D^-\pi^+$		$(3.56 \pm 0.24) \times 10^{-4}$		DESIG=348

Γ_{164}	$\overline{D}_2^*(2462)^0\pi^+$, $\overline{D}_2^{*0} \to \overline{D}^0\pi^-\pi^+$	$(2.2 \pm 1.0) \times 10^{-4}$		DESIG=581
Γ_{165}	$\overline{D}_2^*(2462)^0\pi^+$, $\overline{D}_2^{*0} \to \overline{D}^0\pi^-\pi^+$ (nonresonant)	$< 1.6 \times 10^{-4}$	CL=90%	DESIG=583
Γ_{166}	$\overline{D}_2^*(2462)^0\pi^+$, $\overline{D}_2^{*0} \to D^*(2010)^-\pi^+$	$(2.1 \pm 1.0) \times 10^{-4}$		DESIG=582
Γ_{167}	$\overline{D}_0^*(2400)^0\pi^+ \times \mathrm{B}(\overline{D}_0^*(2400)^0 \to D^-\pi^+)$	$(6.4 \pm 1.4) \times 10^{-4}$		DESIG=349
Γ_{168}	$\overline{D}_1(2421)^0\pi^+$, $\overline{D}_1^0 \to D^{*-}\pi^+$	$(7.4 \pm 1.0) \times 10^{-4}$		DESIG=350
Γ_{169}	$\overline{D}_2^*(2462)^0\pi^+$, $\overline{D}_2^{*0} \to D^{*-}\pi^+$	$(1.98 \pm 0.30) \times 10^{-4}$		DESIG=351
Γ_{170}	$\overline{D}_1'(2427)^0\pi^+$, $\overline{D}_1'^0 \to D^{*-}\pi^+$	$(3.5 \pm 0.9) \times 10^{-4}$	S=1.5	DESIG=352
Γ_{171}	$\overline{D}_1(2420)^0\pi^+ \times \mathrm{B}(\overline{D}_1^0 \to \overline{D}^{*0}\pi^+\pi^-)$	$< 6 \times 10^{-6}$	CL=90%	DESIG=444
Γ_{172}	$\overline{D}_1^*(2420)^0\rho^+$	$< 1.4 \times 10^{-3}$	CL=90%	DESIG=215
Γ_{173}	$\overline{D}_2^*(2460)^0\pi^+$	$< 1.3 \times 10^{-3}$	CL=90%	DESIG=212
Γ_{174}	$\overline{D}_2^*(2460)^0\pi^+ \times \mathrm{B}(\overline{D}_2^{*0} \to \overline{D}^{*0}\pi^+\pi^-)$	$< 2.2 \times 10^{-5}$	CL=90%	DESIG=445
Γ_{175}	$\overline{D}_1^*(2680)^0\pi^+$, $\overline{D}_1^*(2680)^0 \to D^-\pi^+$	$(8.4 \pm 2.1) \times 10^{-5}$		DESIG=701
Γ_{176}	$\overline{D}(2740)^0\pi^+$, $\overline{D}^0 \to D^*(2010)^-\pi^+$	$(3.3 \pm 1.5) \times 10^{-5}$		DESIG=742
Γ_{177}	$\overline{D}_3^*(2750)^0\pi^+$, $\overline{D}_3^{*0} \to D^*(2010)^-\pi^+$	$(1.10 \pm 0.32) \times 10^{-5}$		DESIG=743
Γ_{178}	$\overline{D}_3^*(2760)^0\pi^+$, $\overline{D}_3^*(2760)^0\pi^+ \to D^-\pi^+$	$(1.00 \pm 0.22) \times 10^{-5}$		DESIG=702
Γ_{179}	$\overline{D}_2^*(3000)^0\pi^+$, $\overline{D}_2^*(3000)^0\pi^+ \to D^-\pi^+$	$(2.0 \pm 1.4) \times 10^{-6}$		DESIG=703
Γ_{180}	$\overline{D}_2^*(2460)^0\rho^+$	$< 4.7 \times 10^{-3}$	CL=90%	DESIG=213
Γ_{181}	$\overline{D}^0 D_s^+$	$(9.3 \pm 0.6) \times 10^{-3}$		DESIG=72
Γ_{182}	$D_{s0}^*(2317)^+\overline{D}^0$, $D_{s0}^{*+} \to D_s^+\pi^0$	$(7.9 {}^{+1.5}_{-1.3}) \times 10^{-4}$		DESIG=321
Γ_{183}	$D_{s0}(2317)^+\overline{D}^0 \times \mathrm{B}(D_{s0}(2317)^+ \to D_s^{*+}\gamma)$	$< 7.6 \times 10^{-4}$	CL=90%	DESIG=391
Γ_{184}	$D_{s0}(2317)^+\overline{D}^*(2007)^0 \times \mathrm{B}(D_{s0}(2317)^+ \to D_s^+\pi^0)$	$(9 \pm 7) \times 10^{-4}$		DESIG=26
Γ_{185}	$D_{sJ}(2457)^+\overline{D}^0$	$(3.1 {}^{+1.0}_{-0.9}) \times 10^{-3}$		DESIG=322
Γ_{186}	$D_{sJ}(2457)^+\overline{D}^0 \times \mathrm{B}(D_{sJ}(2457)^+ \to D_s^+\gamma)$	$(4.6 {}^{+1.3}_{-1.1}) \times 10^{-4}$		DESIG=28
Γ_{187}	$D_{sJ}(2457)^+\overline{D}^0 \times \mathrm{B}(D_{sJ}(2457)^+ \to D_s^+\pi^+\pi^-)$	$< 2.2 \times 10^{-4}$	CL=90%	DESIG=392
Γ_{188}	$D_{sJ}(2457)^+\overline{D}^0 \times \mathrm{B}(D_{sJ}(2457)^+ \to D_s^+\pi^0)$	$< 2.7 \times 10^{-4}$	CL=90%	DESIG=393
Γ_{189}	$D_{sJ}(2457)^+\overline{D}^0 \times \mathrm{B}(D_{sJ}(2457)^+ \to D_s^{*+}\gamma)$	$< 9.8 \times 10^{-4}$	CL=90%	DESIG=394
Γ_{190}	$D_{sJ}(2457)^+\overline{D}^*(2007)^0$	(1.20 ± 0.30) %		DESIG=27
Γ_{191}	$D_{sJ}(2457)^+\overline{D}^*(2007)^0 \times \mathrm{B}(D_{sJ}(2457)^+ \to D_s^+\gamma)$	$(1.4 {}^{+0.7}_{-0.6}) \times 10^{-3}$		DESIG=29
Γ_{192}	$\overline{D}^0 D_{s1}(2536)^+ \times \mathrm{B}(D_{s1}(2536)^+ \to D^*(2007)^0 K^+ + D^*(2010)^+ K^0)$	$(4.0 \pm 1.0) \times 10^{-4}$		DESIG=566
Γ_{193}	$\overline{D}^0 D_{s1}(2536)^+ \times \mathrm{B}(D_{s1}(2536)^+ \to D^*(2007)^0 K^+)$	$(2.2 \pm 0.7) \times 10^{-4}$		DESIG=341

Γ_{194}	$\overline{D}^*(2007)^0 D_{s1}(2536)^+ \times$ B$(D_{s1}(2536)^+ \to D^*(2007)^0 K^+)$	$(5.5 \pm 1.6) \times 10^{-4}$		DESIG=342
Γ_{195}	$\overline{D}^0 D_{s1}(2536)^+ \times$ B$(D_{s1}(2536)^+ \to D^{*+} K^0)$	$(2.3 \pm 1.1) \times 10^{-4}$		DESIG=482
Γ_{196}	$\overline{D}^0 D_{sJ}(2700)^+ \times$ B$(D_{sJ}(2700)^+ \to D^0 K^+)$	$(5.6 \pm 1.8) \times 10^{-4}$	S=1.7	DESIG=500
Γ_{197}	$\overline{D}^{*0} D_{s1}(2536)^+,\ D_{s1}^+ \to D^{*+} K^0$	$(3.9 \pm 2.6) \times 10^{-4}$		DESIG=483
Γ_{198}	$\overline{D}^0 D_{sJ}(2573)^+,\ D_{sJ}^+ \to D^0 K^+$	$(8 \pm 15) \times 10^{-6}$		DESIG=644
Γ_{199}	$\overline{D}^{*0} D_{sJ}(2573),\ D_{sJ}^+ \to D^0 K^+$	$< 2 \times 10^{-4}$	CL=90%	DESIG=343
Γ_{200}	$\overline{D}^*(2007)^0 D_{sJ}(2573),\ D_{sJ}^+ \to D^0 K^+$	$< 5 \times 10^{-4}$	CL=90%	DESIG=344
Γ_{201}	$\overline{D}^0 D_s^{*+}$	$(7.6 \pm 1.6) \times 10^{-3}$		DESIG=175
Γ_{202}	$D^- D_s^+ \pi^+$			DESIG=795
Γ_{203}	$\overline{D}^*(2007)^0 D_s^+$	$(7.0 \pm 1.0) \times 10^{-3}$		DESIG=176
Γ_{204}	$\overline{D}^*(2007)^0 D_s^+,\ \overline{D}^{*0} \to D^- \pi^+$			DESIG=810
Γ_{205}	$\overline{D}^*(2007)^0 D_s^{*+}$	(1.71 ± 0.24) %		DESIG=177
Γ_{206}	$\overline{D}_2^*(2460)^0 D_s^+,\ \overline{D}_2^{*0} \to D^- \pi^+$			DESIG=790
Γ_{207}	$\overline{D}_1(2420)^0 D_s^{(*)+}$			DESIG=850
Γ_{208}	$\overline{D}_2^*(2460)^0 D_s^{(*)+}$			DESIG=851
Γ_{209}	$\overline{D}_1^*(2600)^0 D_s^+,\ \overline{D}_1^{*0} \to D^- \pi^+$			DESIG=791
Γ_{210}	$\overline{D}_3^*(2750)^0 D_s^+,\ \overline{D}_3^{*0} \to D^- \pi^+$			DESIG=792
Γ_{211}	$\overline{D}_1^*(2760)^0 D_s^+,\ \overline{D}_1^{*0} \to D^- \pi^+$			DESIG=793
Γ_{212}	$\overline{D}_J^*(3000)^0 D_s^+,\ \overline{D}_J^{*0} \to D^- \pi^+$			DESIG=794
Γ_{213}	$T_{cs0}^*(2900)^{++} D^-,\ T_{cs0}^{*++} \to D_s^+ \pi^+$			DESIG=796
Γ_{214}	$D_s^{(*)+} \overline{D}^{**0}$	(2.7 ± 1.2) %		DESIG=264
Γ_{215}	$\overline{D}^*(2007)^0 D^*(2010)^+$	$(8.1 \pm 1.7) \times 10^{-4}$		DESIG=259
Γ_{216}	$\overline{D}^0 D^*(2010)^+ + \overline{D}^*(2007)^0 D^+$	< 1.30 %	CL=90%	DESIG=260
Γ_{217}	$\overline{D}^0 D^*(2010)^+$	$(3.9 \pm 0.5) \times 10^{-4}$		DESIG=438
Γ_{218}	$\overline{D}^0 D^+$	$(3.8 \pm 0.4) \times 10^{-4}$		DESIG=261
Γ_{219}	$\overline{D}^0 D^+ K^0$	$(1.55 \pm 0.21) \times 10^{-3}$		DESIG=328
Γ_{220}	$D^+ \overline{D}^*(2007)^0$	$(6.3 \pm 1.7) \times 10^{-4}$		DESIG=459
Γ_{221}	$\overline{D}^*(2007)^0 D^+ K^0$	$(2.1 \pm 0.5) \times 10^{-3}$		DESIG=329
Γ_{222}	$\overline{D}^0 D^*(2010)^+ K^0$	$(3.8 \pm 0.4) \times 10^{-3}$		DESIG=330
Γ_{223}	$\overline{D}^*(2007)^0 D^*(2010)^+ K^0$	$(9.2 \pm 1.2) \times 10^{-3}$		DESIG=331
Γ_{224}	$\overline{D}^0 D^0 K^+$	$(1.45 \pm 0.33) \times 10^{-3}$	S=2.6	DESIG=332
Γ_{225}	$\overline{D}^*(2007)^0 D^0 K^+$	$(2.26 \pm 0.23) \times 10^{-3}$		DESIG=333
Γ_{226}	$\overline{D}^0 D^*(2007)^0 K^+$	$(6.3 \pm 0.5) \times 10^{-3}$		DESIG=334
Γ_{227}	$\overline{D}^*(2007)^0 D^*(2007)^0 K^+$	(1.12 ± 0.13) %		DESIG=335
Γ_{228}	$D^- D^+ K^+$	$(2.2 \pm 0.7) \times 10^{-4}$		DESIG=336
Γ_{229}	$T_{cs0}^*(2870)^0 D^+,\ T_{cs0}^{*0} \to D^- K^+$	$(1.2 \pm 0.5) \times 10^{-5}$		DESIG=763
Γ_{230}	$T_{cs1}^*(2900)^0 D^+,\ T_{cs1}^{*0} \to D^- K^+$	$(6.7 \pm 2.3) \times 10^{-5}$		DESIG=764
Γ_{231}	$D^- D^+ K^+$ nonresonant	$(5.3 \pm 1.8) \times 10^{-5}$		DESIG=765
Γ_{232}	$D^- D^*(2010)^+ K^+$	$(6.3 \pm 1.1) \times 10^{-4}$		DESIG=337
Γ_{233}	$D^*(2010)^- D^+ K^+$	$(6.0 \pm 1.3) \times 10^{-4}$		DESIG=338
Γ_{234}	EFF $K+$,EFF $\to D^*(2010)^{\mp} D^{\pm}$	$(1.5 \pm 0.4) \times 10^{-4}$		DESIG=821
Γ_{235}	$\eta_c(3945) K^+,\ \eta_c \to D^*(2010)^{\mp} D^{\pm}$	$(4.6 {}^{+2.7}_{-1.7}) \times 10^{-5}$		DESIG=822

Γ_{236}	$\chi_{c2}(3930)\,K^+,\ \chi_{c2} \to D^*(2010)^{\mp} D^{\pm}$	$(2.4\ ^{+1.0}_{-1.7}) \times 10^{-5}$	DESIG=823
Γ_{237}	$h_c(4000)\,K^+,\ h_c \to D^*(2010)^{\mp} D^{\pm}$	$(7.0\ ^{+2.5}_{-1.6}) \times 10^{-5}$	DESIG=824
Γ_{238}	$\chi_{c1}(4010)\,K^+,\ \chi_{c1} \to D^*(2010)^{\mp} D^{\pm}$	$(1.38\ ^{+0.31}_{-0.28}) \times 10^{-4}$	DESIG=825
Γ_{239}	$\psi(4040)\,K^+,\ \psi \to D^*(2010)^{\mp} D^{\pm}$	$(3.8\ ^{+1.1}_{-0.9}) \times 10^{-5}$	DESIG=826
Γ_{240}	$h_c(4300)\,K^+,\ h_c \to D^*(2010)^{\mp} D^{\pm}$	$(1.6\ ^{+0.4}_{-0.7}) \times 10^{-5}$	DESIG=827
Γ_{241}	$T^*_{\overline{c}s0}(2870)^0\,K^+,\ T^{*0}_{\overline{c}s0} \to D^*(2010)^{\mp} D^{\pm}$	$(4.5\ ^{+1.2}_{-1.4}) \times 10^{-5}$	DESIG=828
Γ_{242}	$T^*_{\overline{c}s1}(2900)^0\,K^+,\ T^{*0}_{\overline{c}s1} \to D^*(2010)^{\mp} D^{\pm}$	$(3.8\ ^{+1.7}_{-1.6}) \times 10^{-5}$	DESIG=829
Γ_{243}	$\mathrm{NR}\,K^+,\ \mathrm{NR} \to D^*(2010)^{\mp} D^{\pm}$	$(2.8\ ^{+0.5}_{-0.4}) \times 10^{-4}$	DESIG=830
Γ_{244}	$\mathrm{NR}\,K^+,\ \mathrm{NR} \to D^*(2010)^{\mp} D^{\pm}$	$(1.6\ ^{+1.3}_{-0.8}) \times 10^{-5}$	DESIG=831
Γ_{245}	$\mathrm{NR}\,K^+,\ \mathrm{NR} \to D^*(2010)^{\mp} D^{\pm}$	$(2.4\ ^{+0.6}_{-0.4}) \times 10^{-4}$	DESIG=832
Γ_{246}	$\mathrm{NR}\,K^+,\ \mathrm{NR} \to D^*(2010)^{\mp} D^{\pm}$	$(2.2\ ^{+0.7}_{-0.5}) \times 10^{-4}$	DESIG=833
Γ_{247}	$D^*(2010)^- D^*(2010)^+ K^+$	$(1.32 \pm 0.18) \times 10^{-3}$	DESIG=339
Γ_{248}	$(\overline{D}+\overline{D}^*)(D+D^*)K$	$(4.05 \pm 0.30)\ \%$	DESIG=340
Γ_{249}	$D_s^- D_s^+ K^+$	$(1.2 \pm 0.4) \times 10^{-4}$	DESIG=789
Γ_{250}	$D_s^+ \pi^0$	$(1.6 \pm 0.5) \times 10^{-5}$	DESIG=192
Γ_{251}	$D_s^{*+} \pi^0$	$< 2.6 \times 10^{-4}$ CL=90%	DESIG=193
Γ_{252}	$D_s^+ \eta$	$< 1.4 \times 10^{-5}$ CL=90%	DESIG=206
Γ_{253}	$D_s^{*+} \eta$	$< 1.7 \times 10^{-5}$ CL=90%	DESIG=207
Γ_{254}	$D_s^+ \rho^0$	$< 3.0 \times 10^{-4}$ CL=90%	DESIG=186
Γ_{255}	$D_s^{*+} \rho^0$	$< 4 \times 10^{-4}$ CL=90%	DESIG=188
Γ_{256}	$D_s^+ \omega$	$< 4 \times 10^{-4}$ CL=90%	DESIG=194
Γ_{257}	$D_s^{*+} \omega$	$< 6 \times 10^{-4}$ CL=90%	DESIG=195
Γ_{258}	$D_s^+ a_1(1260)^0$	$< 1.8 \times 10^{-3}$ CL=90%	DESIG=196
Γ_{259}	$D_s^{*+} a_1(1260)^0$	$< 1.3 \times 10^{-3}$ CL=90%	DESIG=197
Γ_{260}	$D_s^+ K^+ K^-$	$(7.5 \pm 1.0) \times 10^{-6}$	DESIG=711
Γ_{261}	$D_s^+ \phi$	$< 4.2 \times 10^{-7}$ CL=90%	DESIG=198
Γ_{262}	$D_s^{*+} \phi$	$< 1.2 \times 10^{-5}$ CL=90%	DESIG=199
Γ_{263}	$D_s^+ \overline{K}^0$	$< 3 \times 10^{-6}$ CL=90%	DESIG=200
Γ_{264}	$D_s^{*+} \overline{K}^0$	$< 6 \times 10^{-6}$ CL=90%	DESIG=31
Γ_{265}	$D_s^+ \overline{K}^*(892)^0$	$< 4.4 \times 10^{-6}$ CL=90%	DESIG=187
Γ_{266}	$D_s^+ K^{*0}$	$< 3.5 \times 10^{-6}$ CL=90%	DESIG=615
Γ_{267}	$D_s^{*+} \overline{K}^*(892)^0$	$< 3.5 \times 10^{-4}$ CL=90%	DESIG=190
Γ_{268}	$D_s^- \pi^+ K^+$	$(1.80 \pm 0.22) \times 10^{-4}$	DESIG=32
Γ_{269}	$D_s^{*-} \pi^+ K^+$	$(1.45 \pm 0.24) \times 10^{-4}$	DESIG=33
Γ_{270}	$D_s^- \pi^+ K^*(892)^+$	$< 5 \times 10^{-3}$ CL=90%	DESIG=34
Γ_{271}	$D_s^{*-} \pi^+ K^*(892)^+$	$< 7 \times 10^{-3}$ CL=90%	DESIG=35
Γ_{272}	$D_s^- K^+ K^+$	$(9.7 \pm 2.1) \times 10^{-6}$	DESIG=525
Γ_{273}	$D_s^{*-} K^+ K^+$	$< 1.5 \times 10^{-5}$ CL=90%	DESIG=526

Charmonium modes

NODE=S041;CLUMP=C

Γ_{274}	$\eta_c K^+$		$(1.20 \pm 0.08) \times 10^{-3}$	S=1.3	DESIG=265
Γ_{275}	$\eta_c K^*(892)^+$		$(1.4 {}^{+0.7}_{-0.5}) \times 10^{-3}$		DESIG=496
Γ_{276}	$\eta_c K^+ \pi^+ \pi^-$		$< 3.9 \times 10^{-4}$	CL=90%	DESIG=651
Γ_{277}	$\eta_c K^+ \omega(782)$		$< 5.3 \times 10^{-4}$	CL=90%	DESIG=652
Γ_{278}	$\eta_c K^+ \eta$		$< 2.2 \times 10^{-4}$	CL=90%	DESIG=653
Γ_{279}	$\eta_c K^+ \pi^0$		$< 6.2 \times 10^{-5}$	CL=90%	DESIG=654
Γ_{280}	$\eta_c(2S) K^+$		$(4.4 \pm 1.0) \times 10^{-4}$		DESIG=439
Γ_{281}	$\eta_c(2S) K^+,\ \eta_c \to p\overline{p}$		$(3.5 \pm 0.8) \times 10^{-8}$		DESIG=620
Γ_{282}	$\eta_c(2S) K^+,\ \eta_c \to K^0_S K^\mp \pi^\pm$		$(3.4 {}^{+2.3}_{-1.6}) \times 10^{-6}$		DESIG=576
Γ_{283}	$\eta_c(2S) K^+,\ \eta_c \to p\overline{p}\pi^+\pi^-$		$(1.12 \pm 0.18) \times 10^{-6}$		DESIG=731
Γ_{284}	$h_c(1P) K^+,\ h_c \to J/\psi \pi^+ \pi^-$		$< 3.4 \times 10^{-6}$	CL=90%	DESIG=434
Γ_{285}	$X(3730)^0 K^+,\ X^0 \to \eta_c \eta$		$< 4.6 \times 10^{-5}$	CL=90%	DESIG=655
Γ_{286}	$X(3730)^0 K^+,\ X^0 \to \eta_c \pi^0$		$< 5.7 \times 10^{-6}$	CL=90%	DESIG=656
Γ_{287}	$\eta_{c2}(1D) K^+,\ \eta_{c2} \to h_c \gamma$		$< 3.7 \times 10^{-5}$	CL=90%	DESIG=746
Γ_{288}	$\eta_{c2}(1D) \pi^+ K^0_S,\ \eta_{c2} \to h_c \gamma$		$< 1.1 \times 10^{-4}$	CL=90%	DESIG=747
Γ_{289}	$\psi_2(3823) K^+,\ \psi_2 \to J/\psi \pi^+ \pi^-$		$(2.8 \pm 0.6) \times 10^{-7}$		DESIG=745
Γ_{290}	$\psi_2(3823) K^+,\ \psi_2 \to J/\psi \eta$		$(1.2 {}^{+0.7}_{-0.5}) \times 10^{-6}$		DESIG=769
Γ_{291}	$\psi_3(3842) K^+,\ \psi_3 \to J/\psi \eta$		$< 6.1 \times 10^{-7}$	CL=90%	DESIG=771
Γ_{292}	$\chi_{c1}(3872) K^+$		$(1.9 \pm 0.6) \times 10^{-4}$		DESIG=440
Γ_{293}	$\chi_{c0}(3915) K^+$		$< 2.8 \times 10^{-4}$	CL=90%	DESIG=709
Γ_{294}	$\chi_{c0}(3915) K^+,\ \chi_{c0} \to D^+ D^-$		$(8.1 \pm 3.3) \times 10^{-6}$		DESIG=758
Γ_{295}	$\chi_{c0}(3915) K^+,\ \chi_{c0} \to \eta_c \eta$		$< 4.7 \times 10^{-5}$	CL=90%	DESIG=659
Γ_{296}	$\chi_{c0}(3915) K^+,\ \chi_{c0} \to \eta_c \pi^0$		$< 1.7 \times 10^{-5}$	CL=90%	DESIG=660
Γ_{297}	$X(4014)^0 K^+,\ X^0 \to \eta_c \eta$		$< 3.9 \times 10^{-5}$	CL=90%	DESIG=661
Γ_{298}	$X(4014)^0 K^+,\ X^0 \to \eta_c \pi^0$		$< 1.2 \times 10^{-5}$	CL=90%	DESIG=662
Γ_{299}	$T_{c\overline{c}1}(3900)^0 K^+,\ T^0_{c\overline{c}1} \to \eta_c \pi^+ \pi^-$		$< 4.7 \times 10^{-5}$	CL=90%	DESIG=663
Γ_{300}	$T_{c\overline{c}1}(3900)^0 K^+,\ T^0_{c\overline{c}1} \to J/\psi \eta$		$< 4.3 \times 10^{-7}$	CL=90%	DESIG=774
Γ_{301}	$T_{c\overline{c}}(4020)^0 K^+,\ T^0_{c\overline{c}} \to \eta_c \pi^+ \pi^-$		$< 1.6 \times 10^{-5}$	CL=90%	DESIG=664
Γ_{302}	$\chi_{c1}(3872) K^*(892)^+$		$< 5 \times 10^{-4}$	CL=90%	DESIG=757
Γ_{303}	$\chi_{c1}(3872)^+ K^0,\ \chi^+_{c1} \to J/\psi(1S) \pi^+ \pi^0$	[f]	$< 6.1 \times 10^{-6}$	CL=90%	DESIG=402
Γ_{304}	$\chi_{c1}(3872) K^0 \pi^+$		$(2.4 \pm 1.1) \times 10^{-4}$		DESIG=643
Γ_{305}	$T_{c\overline{c}1}(4430)^+ K^0,\ T^+_{c\overline{c}1} \to J/\psi \pi^+$		$< 1.5 \times 10^{-5}$	CL=95%	DESIG=534
Γ_{306}	$T_{c\overline{c}1}(4430)^+ K^0,\ T^+_{c\overline{c}1} \to \psi(2S) \pi^+$		$< 4.7 \times 10^{-5}$	CL=95%	DESIG=535
Γ_{307}	$T_{c\overline{c}1}(4430)^0 K^+,\ T^0_{c\overline{c}1} \to J/\psi \eta$		$< 1.27 \times 10^{-6}$	CL=90%	DESIG=773
Γ_{308}	$\psi(4230)^0 K^+,\ \psi^0 \to J/\psi \pi^+ \pi^-$		$< 1.56 \times 10^{-5}$	CL=95%	DESIG=421
Γ_{309}	$\psi(4230) K^+,\ \psi \to J/\psi \eta$		$< 3.9 \times 10^{-7}$	CL=90%	DESIG=775
Γ_{310}	$\psi(4360) K^+,\ \psi \to J/\psi \eta$		$< 1.24 \times 10^{-6}$	CL=90%	DESIG=776
Γ_{311}	$\psi(4360) K^+,\ \psi(4360) \to \psi(2S) \pi^+ \pi^-$		$(2.8 \pm 0.9) \times 10^{-6}$		DESIG=855
Γ_{312}	$\psi(4390) K^+,\ \psi \to J/\psi \eta$		$< 2.41 \times 10^{-6}$	CL=90%	DESIG=777
Γ_{313}	$\chi_{c0}(3915) K^+,\ \chi_{c0} \to J/\psi \gamma$		$< 1.4 \times 10^{-5}$	CL=90%	DESIG=461
Γ_{314}	$\chi_{c0}(3915) K^+,\ \chi_{c0} \to \chi_{c1}(1P) \pi^0$		$< 3.8 \times 10^{-5}$	CL=90%	DESIG=728
Γ_{315}	$X(3930)^0 K^+,\ X^0 \to J/\psi \gamma$		$< 2.5 \times 10^{-6}$	CL=90%	DESIG=462
Γ_{316}	$J/\psi(1S) K^+$		$(1.019 \pm 0.019) \times 10^{-3}$		DESIG=3
Γ_{317}	$J/\psi(1S) K^0 \pi^+$		$(1.13 \pm 0.11) \times 10^{-3}$		DESIG=612
Γ_{318}	$J/\psi(1S) K^+ \pi^+ \pi^-$		$(8.1 \pm 1.3) \times 10^{-4}$	S=2.5	DESIG=19
Γ_{319}	$J/\psi(1S) K^+ K^- K^+$		$(3.37 \pm 0.29) \times 10^{-5}$		DESIG=634

Γ_{320}	$\chi_{c0}(3915)K^+$, $\chi_{c0} \to p\overline{p}$	$< 7.1 \times 10^{-8}$	CL=95%	DESIG=621
Γ_{321}	$J/\psi(1S)K^*(892)^+$	$(1.43 \pm 0.08) \times 10^{-3}$		DESIG=142
Γ_{322}	$J/\psi(1S)K(1270)^+$	$(1.8 \pm 0.5) \times 10^{-3}$		DESIG=271
Γ_{323}	$J/\psi(1S)K(1400)^+$	$< 5 \times 10^{-4}$	CL=90%	DESIG=272
Γ_{324}	$J/\psi(1S)\eta K^+$	$(1.24 \pm 0.14) \times 10^{-4}$		DESIG=354
Γ_{325}	$\chi_{c1-odd}(3872)K^+$, $\chi_{c1-odd} \to J/\psi\eta$	$< 3.8 \times 10^{-6}$	CL=90%	DESIG=646
Γ_{326}	$\psi(4160)K^+$, $\psi \to J/\psi\eta$	$< 8.7 \times 10^{-7}$	CL=90%	DESIG=648
Γ_{327}	$J/\psi(1S)\eta' K^+$	$(3.1 \pm 0.4) \times 10^{-5}$		DESIG=477
Γ_{328}	$J/\psi(1S)\phi K^+$	$(5.0 \pm 0.4) \times 10^{-5}$		DESIG=268
Γ_{329}	$J/\psi(1S)K_1(1650)$, $K_1 \to \phi K^+$	$(6 {}^{+10}_{-6}) \times 10^{-6}$		DESIG=697
Γ_{330}	$J/\psi(1S)K^*(1680)^+$, $K^* \to \phi K^+$	$(3.4 {}^{+1.9}_{-2.2}) \times 10^{-6}$		DESIG=698
Γ_{331}	$J/\psi(1S)K_2^*(1980)$, $K_2^* \to \phi K^+$	$(1.5 {}^{+0.9}_{-0.5}) \times 10^{-6}$		DESIG=699
Γ_{332}	$J/\psi(1S)K(1830)^+$, $K(1830)^+ \to \phi K^+$	$(1.3 {}^{+1.3}_{-1.1}) \times 10^{-6}$		DESIG=700
Γ_{333}	$\chi_{c1}(4140)K^+$, $\chi_{c1} \to J/\psi(1S)\phi$	$(10 \pm 4) \times 10^{-6}$		DESIG=602
Γ_{334}	$\chi_{c1}(4274)K^+$, $\chi_{c1} \to J/\psi(1S)\phi$	$(3.6 {}^{+2.2}_{-1.8}) \times 10^{-6}$		DESIG=603
Γ_{335}	$\chi_{c0}(4500)K^+$, $\chi_{c0} \to J/\psi(1S)\phi$	$(3.3 {}^{+2.1}_{-1.7}) \times 10^{-6}$		DESIG=695
Γ_{336}	$\chi_{c0}(4700)K^+$, $\chi_{c0} \to J/\psi(1S)\phi$	$(6 {}^{+5}_{-4}) \times 10^{-6}$		DESIG=696
Γ_{337}	$J/\psi(1S)\omega K^+$	$(3.20 {}^{+0.60}_{-0.32}) \times 10^{-4}$		DESIG=528
Γ_{338}	$\chi_{c0}(3915)K^+$, $\chi_{c0} \to J/\psi\omega$	$(3.0 {}^{+0.9}_{-0.7}) \times 10^{-5}$		DESIG=555
Γ_{339}	$J/\psi(1S)\pi^+$	$(4.1 \pm 0.4) \times 10^{-5}$	S=2.5	DESIG=222
Γ_{340}	$J/\psi(1S)\pi^+\pi^+\pi^+\pi^-\pi^-$	$(1.17 \pm 0.13) \times 10^{-5}$		DESIG=693
Γ_{341}	$\psi(2S)\pi^+\pi^+\pi^-$	$(1.9 \pm 0.4) \times 10^{-5}$		DESIG=694
Γ_{342}	$J/\psi(1S)\rho^+$	$(4.1 \pm 0.5) \times 10^{-5}$	S=1.4	DESIG=226
Γ_{343}	$J/\psi(1S)\pi^+\pi^0$ nonresonant	$< 7.3 \times 10^{-6}$	CL=90%	DESIG=478
Γ_{344}	$J/\psi(1S)a_1(1260)^+$	$< 1.2 \times 10^{-3}$	CL=90%	DESIG=227
Γ_{345}	$J/\psi(1S)p\overline{p}\pi^+$	$< 5.0 \times 10^{-7}$	CL=90%	DESIG=617
Γ_{346}	$J/\psi(1S)p\overline{\Lambda}$	$(1.46 \pm 0.12) \times 10^{-5}$		DESIG=318
Γ_{347}	$J/\psi(1S)\overline{\Sigma}^0 p$	$< 1.1 \times 10^{-5}$	CL=90%	DESIG=422
Γ_{348}	$J/\psi(1S)D^+$	$< 1.2 \times 10^{-4}$	CL=90%	DESIG=395
Γ_{349}	$J/\psi(1S)\overline{D}^0\pi^+$	$< 2.5 \times 10^{-5}$	CL=90%	DESIG=396
Γ_{350}	$J/\psi(1S)D_s^+$	$< 2.8 \times 10^{-7}$	CL=90%	DESIG=834
Γ_{351}	$\psi(2S)\pi^+$	$(2.44 \pm 0.30) \times 10^{-5}$		DESIG=524
Γ_{352}	$\psi(2S)K^+$	$(6.24 \pm 0.21) \times 10^{-4}$		DESIG=20
Γ_{353}	$\psi(2S)K^*(892)^+$	$(6.7 \pm 1.4) \times 10^{-4}$	S=1.3	DESIG=143
Γ_{354}	$\psi(2S)K^0\pi^+$			DESIG=613
Γ_{355}	$\psi(2S)K^+\pi^+\pi^-$	$(4.3 \pm 0.5) \times 10^{-4}$		DESIG=144
Γ_{356}	$\chi_{c0}(4500)K^+$, $\chi_{c0}(4500) \to \psi(2S)\pi^+\pi^-$	$(8.0 \pm 1.7) \times 10^{-5}$		DESIG=852
Γ_{357}	$\chi_{c1}(4685)K^+$, $\chi_{c1}(4685) \to \psi(2S)\pi^+\pi^-$	$(1.25 \pm 0.32) \times 10^{-5}$		DESIG=853
Γ_{358}	$\chi_{c0}(4700)K^+$, $\chi_{c0}(4700) \to \psi(2S)\pi^+\pi^-$	$(7.5 \pm 2.3) \times 10^{-6}$		DESIG=854
Γ_{359}	$\psi(2S)K^*(1410)^+$, $K^*(1410)^+ \to K^+\pi^+\pi^-$	$(8 \pm 4) \times 10^{-6}$		DESIG=856
Γ_{360}	$\psi(2S)K^*(1680)^+$, $K^*(1680)^+ \to K^+\pi^+\pi^-$	$(3.5 \pm 1.7) \times 10^{-5}$		DESIG=857

Γ_{361}	$\psi(2S) K_1(1270)^+$, $K_1(1270)^+ \to K^+ \pi^+ \pi^-$	$(3.3 \pm 0.8) \times 10^{-5}$		DESIG=858
Γ_{362}	$[\psi(2S) K_1(1270)^+$, $K_1(1270)^+ \to K^+ \pi^+ \pi^-]_{P-wave}$	$(3.3 \pm 0.7) \times 10^{-5}$		DESIG=859
Γ_{363}	$[\psi(2S) K_1(1270)^+$, $K_1(1270)^+ \to K^+ \pi^+ \pi^-]_{D-wave}$	$(3.0 \pm 0.7) \times 10^{-5}$		DESIG=860
Γ_{364}	$\psi(2S) K_1(1400)^+$, $K_1(1400)^+ \to K^+ \pi^+ \pi^-$	$(2.5 \pm 0.6) \times 10^{-5}$		DESIG=861
Γ_{365}	$[\psi(2S) K_1(1400)^+$, $K_1(1400)^+ \to K^+ \pi^+ \pi^-]_{P-wave}$	$(2.1 \pm 1.9) \times 10^{-6}$		DESIG=862
Γ_{366}	$\psi(2S) K_1(1460)^+$, $K_1(1460)^+ \to K^+ \pi^+ \pi^-$	$(2.3 \pm 0.5) \times 10^{-5}$		DESIG=863
Γ_{367}	$\psi(2S) K_2^*(1430)^+$, $K_2^*(1430)^+ \to K^+ \pi^+ \pi^-$	$(1.89 \pm 0.29) \times 10^{-5}$		DESIG=864
Γ_{368}	$T_{c\overline{c}1}(4200)^+ K^*(892)^0 \to \psi(2S) K^+ \pi^+ \pi^-$	$(1.7 \pm 0.6) \times 10^{-5}$		DESIG=865
Γ_{369}	$[T_{c\overline{c}1}(4200)^+ K^*(892)^0 \to \psi(2S) K^+ \pi^+ \pi^-]_{P-wave}$	$(2.0 \pm 1.0) \times 10^{-5}$		DESIG=866
Γ_{370}	$[T_{c\overline{c}1}(4200)^+ K^*(892)^0 \to \psi(2S) K^+ \pi^+ \pi^-]_{D-wave}$	$(1.21 \pm 0.34) \times 10^{-5}$		DESIG=867
Γ_{371}	$T_{c\overline{c}1}(4430)^+ K^*(892)^0 \to \psi(2S) K^+ \pi^+ \pi^-$	$(3 \pm 10) \times 10^{-6}$		DESIG=868
Γ_{372}	$T_{c\overline{c}1}(4430)^+ [K^+ \pi^-]_{S-wave} \to \psi(2S) K^+ \pi^+ \pi^-$	$(1.5 \pm 0.5) \times 10^{-5}$		DESIG=869
Γ_{373}	$T_{c\overline{cs}1}(4600)^0 \pi^+$, $T_{c\overline{cs}1}(4600)^0 \to \psi(2S) K^+ \pi^-$	$(1.9 \pm 1.1) \times 10^{-5}$		DESIG=870
Γ_{374}	$T_{c\overline{cs}1}(4900)^0 \pi^+$, $T_{c\overline{cs}1}(4900)^0 \to \psi(2S) K^+ \pi^-$	$(1.1 \pm 0.9) \times 10^{-5}$		DESIG=871
Γ_{375}	$\psi(2S) \phi(1020) K^+$	$(3.4 \pm 0.5) \times 10^{-6}$		DESIG=691
Γ_{376}	$\psi(3770) K^+$	$(4.3 \pm 1.1) \times 10^{-4}$		DESIG=360
Γ_{377}	$\psi(3770) K+, \psi \to D^0 \overline{D}^0$	$(1.5 \pm 0.5) \times 10^{-4}$	S=1.4	DESIG=361
Γ_{378}	$\psi(3770) K+, \psi \to D^+ D^-$	$(9.4 \pm 3.5) \times 10^{-5}$		DESIG=362
Γ_{379}	$\psi(3770) K^+$, $\psi \to p \overline{p}$	$< 2 \times 10^{-7}$	CL=95%	DESIG=707
Γ_{380}	$\psi(3770) K^+$, $\psi \to J/\psi \eta$	$< 4.6 \times 10^{-7}$	CL=90%	DESIG=770
Γ_{381}	$\psi(4040) K^+$	$(1.6 \pm 0.5) \times 10^{-3}$		DESIG=647
Γ_{382}	$\psi(4040) K^+$, $\psi \to D^+ D^-$	$(1.1 \pm 0.5) \times 10^{-5}$		DESIG=760
Γ_{383}	$\psi(4160) K^+$	$(5.1 \pm 2.7) \times 10^{-4}$		DESIG=619
Γ_{384}	$\psi(4160) K^+$, $\psi \to \overline{D}^0 D^0$	$(8 \pm 5) \times 10^{-5}$		DESIG=645
Γ_{385}	$\psi(4160) K^+$, $\psi \to D^+ D^-$	$(1.5 \pm 0.6) \times 10^{-5}$		DESIG=761
Γ_{386}	$\psi(4415) K^+$, $\psi \to D^+ D^-$	$(2.0 \pm 0.8) \times 10^{-5}$		DESIG=762
Γ_{387}	$\psi(4415) K^+$, $\psi \to J/\psi \eta$	$< 9.6 \times 10^{-7}$	CL=90%	DESIG=772
Γ_{388}	$\chi_{c0} \pi^+$, $\chi_{c0} \to \pi^+ \pi^-$	$< 1 \times 10^{-7}$	CL=90%	DESIG=409
Γ_{389}	$\chi_{c0} \pi^+$, $\chi_{c0} \to \pi^0 \pi^0$	$< 5 \times 10^{-7}$	CL=90%	DESIG=781
Γ_{390}	$\chi_{c0} K^+$	$(1.52 {}^{+0.15}_{-0.13}) \times 10^{-4}$		DESIG=266
Γ_{391}	$\chi_{c0} K^0 \pi^+$	$(1.45 \pm 0.21) \times 10^{-3}$		DESIG=799
Γ_{392}	$\chi_{c0} K^*(892)^+$	$< 2.1 \times 10^{-4}$	CL=90%	DESIG=435
Γ_{393}	$\chi_{c1}(1P) \pi^+$	$(2.2 \pm 0.5) \times 10^{-5}$		DESIG=468
Γ_{394}	$\chi_{c1}(1P) K^+$	$(4.74 \pm 0.22) \times 10^{-4}$		DESIG=171
Γ_{395}	$\chi_{c1}(1P) K^*(892)^+$	$(3.0 \pm 0.6) \times 10^{-4}$	S=1.1	DESIG=216
Γ_{396}	$\chi_{c1}(1P) K^0 \pi^+$	$(5.8 \pm 0.4) \times 10^{-4}$		DESIG=611
Γ_{397}	$\chi_{c1}(1P) K^+ \pi^0$	$(3.29 \pm 0.35) \times 10^{-4}$		DESIG=678
Γ_{398}	$\chi_{c1}(1P) K^+ \pi^+ \pi^-$	$(3.74 \pm 0.30) \times 10^{-4}$		DESIG=681

Γ_{399}	$\chi_{c1}(2P)\,K^+,\ \chi_{c1}(2P) \to \pi^+\pi^-\chi_{c1}(1P)$	$< 1.1 \times 10^{-5}$	CL=90%	DESIG=684
Γ_{400}	$\chi_{c2}\,\pi^+,\ \chi_{c2} \to \pi^0\pi^0$	$< 7 \times 10^{-7}$	CL=90%	DESIG=782
Γ_{401}	$\chi_{c2}\,K^+$	$(1.1 \pm 0.4) \times 10^{-5}$		DESIG=436
Γ_{402}	$\chi_{c2}\,K^+,\ \chi_{c2} \to p\overline{p}\pi^+\pi^-$	$< 1.9 \times 10^{-7}$		DESIG=730
Γ_{403}	$\chi_{c2}\,K^*(892)^+$	$< 1.2 \times 10^{-4}$	CL=90%	DESIG=437
Γ_{404}	$\chi_{c2}\,K^0\pi^+$	$(1.24 \pm 0.25) \times 10^{-4}$		DESIG=677
Γ_{405}	$\chi_{c2}\,K^+\pi^0$	$< 6.2 \times 10^{-5}$	CL=90%	DESIG=679
Γ_{406}	$\chi_{c2}\,K^+\pi^+\pi^-$	$(1.34 \pm 0.19) \times 10^{-4}$		DESIG=682
Γ_{407}	$\chi_{c2}(3930)\,K^+,\ \chi_{c2} \to D^+D^-$	$(1.6 \pm 0.6) \times 10^{-5}$		DESIG=759
Γ_{408}	$\chi_{c2}(3930)\,\pi^+,\ \chi_{c2} \to \pi^+\pi^-$	$< 1 \times 10^{-7}$	CL=90%	DESIG=542
Γ_{409}	$h_c(1P)\,K^+$	$(3.7 \pm 1.2) \times 10^{-5}$		DESIG=467
Γ_{410}	$h_c(1P)\,K^+,\ h_c \to p\overline{p}$	$< 6.4 \times 10^{-8}$	CL=95%	DESIG=622
	K or K^* modes			NODE=S041;CLUMP=D
Γ_{411}	$K^0\pi^+$	$(2.39 \pm 0.06) \times 10^{-5}$		DESIG=5
Γ_{412}	$K^+\pi^0$	$(1.32 \pm 0.04) \times 10^{-5}$		DESIG=223
Γ_{413}	$\eta'\,K^+$	$(7.04 \pm 0.25) \times 10^{-5}$		DESIG=248
Γ_{414}	$\eta'\,K^*(892)^+$	$(4.8\ ^{+1.8}_{-1.6}) \times 10^{-6}$		DESIG=244
Γ_{415}	$\eta'\,K_0^*(1430)^+$	$(5.2 \pm 2.1) \times 10^{-6}$		DESIG=552
Γ_{416}	$\eta'\,K_2^*(1430)^+$	$(2.8 \pm 0.5) \times 10^{-5}$		DESIG=553
Γ_{417}	$\eta\,K^+$	$(2.4 \pm 0.4) \times 10^{-6}$	S=1.7	DESIG=245
Γ_{418}	$\eta\,K^*(892)^+$	$(1.93 \pm 0.16) \times 10^{-5}$		DESIG=246
Γ_{419}	$\eta\,K_0^*(1430)^+$	$(1.8 \pm 0.4) \times 10^{-5}$		DESIG=456
Γ_{420}	$\eta\,K_2^*(1430)^+$	$(9.1 \pm 3.0) \times 10^{-6}$		DESIG=457
Γ_{421}	$\eta(1295)\,K^+,\ \eta \to \eta\pi\pi$	$(2.9\ ^{+0.8}_{-0.7}) \times 10^{-6}$		DESIG=510
Γ_{422}	$\eta(1405)\,K^+,\ \eta \to \eta\pi\pi$	$< 1.3 \times 10^{-6}$	CL=90%	DESIG=511
Γ_{423}	$\eta(1405)\,K^+,\ \eta \to K^*K$	$< 1.2 \times 10^{-6}$	CL=90%	DESIG=512
Γ_{424}	$\eta(1405)\,K^+,\ \eta \to K^0K\pi$	$(8.0 \pm 1.1) \times 10^{-6}$		DESIG=839
Γ_{425}	$\eta(1475)\,K^+,\ \eta \to K^*K$	$(1.42 \pm 0.13) \times 10^{-5}$		DESIG=513
Γ_{426}	$\eta(1475)\,K^+,\ \eta \to a_0(980)\pi$	$(2.2 \pm 0.5) \times 10^{-6}$		DESIG=836
Γ_{427}	$\eta(1475)\,K^+,\ \eta \to K^0K\pi$	$(1.51 \pm 0.31) \times 10^{-5}$		DESIG=837
Γ_{428}	$\eta(1760)\,K^+,\ \eta \to K^*\overline{K}$	$(3.4 \pm 0.6) \times 10^{-6}$		DESIG=840
Γ_{429}	$\eta(1760)\,K^+,\ \eta \to a_0(980)\pi$	$(2.6 \pm 0.5) \times 10^{-6}$		DESIG=841
Γ_{430}	$\eta(1760)\,K^+,\ \eta \to K^0K\pi$	$(2.2 \pm 0.4) \times 10^{-5}$		DESIG=842
Γ_{431}	$f_1(1285)\,K^+$	$< 2.0 \times 10^{-6}$	CL=90%	DESIG=514
Γ_{432}	$f_1(1285)\,K^+,\ f_1 \to a_0(980)\pi$	$(2.8 \pm 0.4) \times 10^{-6}$		DESIG=843
Γ_{433}	$f_1(1420)\,K^+,\ f_1 \to \eta\pi\pi$	$< 2.9 \times 10^{-6}$	CL=90%	DESIG=515
Γ_{434}	$f_1(1420)\,K^+,\ f_1 \to K^*K$	$< 4.1 \times 10^{-6}$	CL=90%	DESIG=516
Γ_{435}	$f_1(1510)\,K^+,\ f_1 \to K^*\overline{K}$	$(3.8 \pm 1.5) \times 10^{-6}$		DESIG=844
Γ_{436}	$h_1(1415)\,K^+,\ h_1 \to K^*\overline{K}$	$(2.22 \pm 0.27) \times 10^{-5}$		DESIG=845
Γ_{437}	$h_1(1595)\,K^+,\ h_1 \to K^*\overline{K}$	$(1.04 \pm 0.16) \times 10^{-5}$		DESIG=846
Γ_{438}	$\eta_2(1645)\,K^+,\ \eta_2 \to K^*\overline{K}$	$(1.50 \pm 0.28) \times 10^{-6}$		DESIG=847
Γ_{439}	$\phi(1680)\,K^+,\ \phi \to K^*K$	$< 3.4 \times 10^{-6}$	CL=90%	DESIG=517
Γ_{440}	$f_0(1500)\,K^+$	$(3.7 \pm 2.2) \times 10^{-6}$		DESIG=415
Γ_{441}	$\omega\,K^+$	$(6.5 \pm 0.4) \times 10^{-6}$		DESIG=251
Γ_{442}	$\omega\,K^*(892)^+$	$< 7.4 \times 10^{-6}$	CL=90%	DESIG=252
Γ_{443}	$\omega\,(K\pi)_0^{*+}$	$(2.8 \pm 0.4) \times 10^{-5}$		DESIG=530
Γ_{444}	$\omega\,K_0^*(1430)^+$	$(2.4 \pm 0.5) \times 10^{-5}$		DESIG=531
Γ_{445}	$\omega\,K_2^*(1430)^+$	$(2.1 \pm 0.4) \times 10^{-5}$		DESIG=532
Γ_{446}	$a_0(980)^+K^0,\ a_0^+ \to \eta\pi^+$	$< 3.9 \times 10^{-6}$	CL=90%	DESIG=378
Γ_{447}	$a_0(980)^0K^+,\ a_0^0 \to \eta\pi^0$	$< 2.5 \times 10^{-6}$	CL=90%	DESIG=377
Γ_{448}	$K^*(892)^0\pi^+$	$(1.01 \pm 0.08) \times 10^{-5}$		DESIG=6
Γ_{449}	$K^*(892)^+\pi^0$	$(6.8 \pm 0.9) \times 10^{-6}$		DESIG=225
Γ_{450}	$K^+\pi^-\pi^+$	$(5.10 \pm 0.29) \times 10^{-5}$		DESIG=282
Γ_{451}	$K^+\pi^-\pi^+$ nonresonant	$(1.63\ ^{+0.21}_{-0.15}) \times 10^{-5}$		DESIG=59
Γ_{452}	$\omega(782)\,K^+$	$(6 \pm 9) \times 10^{-6}$		DESIG=507

Γ_{453}	$K^+ f_0(980) \times \mathrm{B}(f_0(980) \to \pi^+\pi^-)$	$(9.4\ ^{+\ 1.0}_{-\ 1.2}) \times 10^{-6}$		DESIG=281
Γ_{454}	$f_2(1270)^0 K^+$	$(1.07 \pm 0.27) \times 10^{-6}$		DESIG=412
Γ_{455}	$f_0(1370)^0 K^+ \times \mathrm{B}(f_0(1370)^0 \to \pi^+\pi^-)$	$< 1.07 \times 10^{-5}$	CL=90%	DESIG=413
Γ_{456}	$\rho(14500) K^+ \times \mathrm{B}(\rho(1450)^0 \to \pi^+\pi^-)$	$< 1.17 \times 10^{-5}$	CL=90%	DESIG=414
Γ_{457}	$f_2'(1525) K^+ \times \mathrm{B}(f_2'(1525) \to \pi^+\pi^-)$	$< 3.4 \times 10^{-6}$	CL=90%	DESIG=416
Γ_{458}	$K^+ \rho^0$	$(3.7 \pm 0.5) \times 10^{-6}$		DESIG=7
Γ_{459}	$K_0^*(1430)^0 \pi^+$	$(3.9\ ^{+\ 0.6}_{-\ 0.5}) \times 10^{-5}$	S=1.4	DESIG=410
Γ_{460}	$K_2^*(1430)^0 \pi^+$	$(5.6\ ^{+\ 2.2}_{-\ 1.5}) \times 10^{-6}$		DESIG=152
Γ_{461}	$K^*(1410)^0 \pi^+$	$< 4.5 \times 10^{-5}$	CL=90%	DESIG=427
Γ_{462}	$K^*(1680)^0 \pi^+$	$< 1.2 \times 10^{-5}$	CL=90%	DESIG=411
Γ_{463}	$K^+ \pi^0 \pi^0$	$(1.62 \pm 0.19) \times 10^{-5}$		DESIG=584
Γ_{464}	$f_0(980) K^+ \times \mathrm{B}(f_0 \to \pi^0\pi^0)$	$(2.8 \pm 0.8) \times 10^{-6}$		DESIG=585
Γ_{465}	$K^- \pi^+ \pi^+$	$< 4.6 \times 10^{-8}$	CL=90%	DESIG=283
Γ_{466}	$K^- \pi^+ \pi^+$ nonresonant	$< 5.6 \times 10^{-5}$	CL=90%	DESIG=229
Γ_{467}	$K_1(1270)^0 \pi^+$	$< 4.0 \times 10^{-5}$	CL=90%	DESIG=550
Γ_{468}	$K_1(1400)^0 \pi^+$	$< 3.9 \times 10^{-5}$	CL=90%	DESIG=151
Γ_{469}	$K^0 \pi^+ \pi^0$	$< 6.6 \times 10^{-5}$	CL=90%	DESIG=305
Γ_{470}	$K_0^*(1430)^+ \pi^0$	$(1.19\ ^{+\ 0.20}_{-\ 0.23}) \times 10^{-5}$		DESIG=710
Γ_{471}	$K^0 \rho^+$	$(7.3\ ^{+\ 1.0}_{-\ 1.2}) \times 10^{-6}$		DESIG=224
Γ_{472}	$K^*(892)^+ \pi^+ \pi^-$	$(7.5 \pm 1.0) \times 10^{-5}$		DESIG=163
Γ_{473}	$K^*(892)^+ \rho^0$	$(4.6 \pm 1.1) \times 10^{-6}$		DESIG=153
Γ_{474}	$K^*(892)^+ f_0(980)$	$(4.2 \pm 0.7) \times 10^{-6}$		DESIG=455
Γ_{475}	$a_1^+ K^0$	$(3.5 \pm 0.7) \times 10^{-5}$		DESIG=487
Γ_{476}	$b_1^+ K^0 \times \mathrm{B}(b_1^+ \to \omega\pi^+)$	$(9.6 \pm 1.9) \times 10^{-6}$		DESIG=508
Γ_{477}	$K^*(892)^0 \rho^+$	$(9.2 \pm 1.5) \times 10^{-6}$		DESIG=405
Γ_{478}	$K_1(1400)^+ \rho^0$	$< 7.8 \times 10^{-4}$	CL=90%	DESIG=154
Γ_{479}	$K_2^*(1430)^+ \rho^0$	$< 1.5 \times 10^{-3}$	CL=90%	DESIG=155
Γ_{480}	$b_1^0 K^+ \times \mathrm{B}(b_1^0 \to \omega\pi^0)$	$(9.1 \pm 2.0) \times 10^{-6}$		DESIG=491
Γ_{481}	$b_1^+ K^{*0} \times \mathrm{B}(b_1^+ \to \omega\pi^+)$	$< 5.9 \times 10^{-6}$	CL=90%	DESIG=543
Γ_{482}	$b_1^0 K^{*+} \times \mathrm{B}(b_1^0 \to \omega\pi^0)$	$< 6.7 \times 10^{-6}$	CL=90%	DESIG=544
Γ_{483}	$K^+ \overline{K}^0$	$(1.32 \pm 0.17) \times 10^{-6}$	S=1.2	DESIG=241
Γ_{484}	$\overline{K}^0 K^+ \pi^0$	$< 2.4 \times 10^{-5}$	CL=90%	DESIG=306
Γ_{485}	$K^+ K_S^0 K_S^0$	$(1.05 \pm 0.04) \times 10^{-5}$		DESIG=323
Γ_{486}	$f_0(980) K^+,\ f_0 \to K_S^0 K_S^0$	$(1.47 \pm 0.33) \times 10^{-5}$		DESIG=597
Γ_{487}	$f_0(1710) K^+,\ f_0 \to K_S^0 K_S^0$	$(4.8\ ^{+\ 4.0}_{-\ 2.6}) \times 10^{-7}$		DESIG=598
Γ_{488}	$K^+ K_S^0 K_S^0$ nonresonant	$(2.0 \pm 0.4) \times 10^{-5}$		DESIG=599
Γ_{489}	$K_S^0 K_S^0 \pi^+$	$< 5.1 \times 10^{-7}$	CL=90%	DESIG=324
Γ_{490}	$K^+ K^- \pi^+$	$(5.2 \pm 0.4) \times 10^{-6}$		DESIG=284
Γ_{491}	$K^+ K^- \pi^+$ nonresonant	$(1.68 \pm 0.26) \times 10^{-6}$		DESIG=230
Γ_{492}	$K^+ \overline{K}^*(892)^0$	$(5.9 \pm 0.8) \times 10^{-7}$		DESIG=263
Γ_{493}	$K^+ \overline{K}_0^*(1430)^0$	$(3.8 \pm 1.3) \times 10^{-7}$		DESIG=501
Γ_{494}	$\pi^+ (K^+ K^-)_{S-wave}$	$(8.5 \pm 0.9) \times 10^{-7}$		DESIG=737
Γ_{495}	$\pi^+ K^+ K^-$, $m_{K^+K^-} < 1.1$ GeV	$(5.4 \pm 0.5) \times 10^{-6}$		DESIG=784
Γ_{496}	$K^+ K^+ \pi^-$	$< 1.1 \times 10^{-8}$	CL=90%	DESIG=285
Γ_{497}	$K^+ K^+ \pi^-$ nonresonant	$< 8.79 \times 10^{-5}$	CL=90%	DESIG=262
Γ_{498}	$f_2'(1525) K^+$	$(1.8 \pm 0.5) \times 10^{-6}$	S=1.1	DESIG=430
Γ_{499}	$K^+ f_J(2220)$			DESIG=326
Γ_{500}	$K^{*+} \pi^+ K^-$	$< 1.18 \times 10^{-5}$	CL=90%	DESIG=453
Γ_{501}	$K^*(892)^+ K^*(892)^0$	$(9.1 \pm 2.9) \times 10^{-7}$		DESIG=277

Γ_{502}	$K^{*+} K^+ \pi^-$	$< 6.1 \times 10^{-6}$	CL=90%	DESIG=454
Γ_{503}	$K^+ K^- K^+$	$(3.40 \pm 0.14) \times 10^{-5}$	S=1.4	DESIG=160
Γ_{504}	$K^+ \phi$	$(8.8 {}^{+0.7}_{-0.6}) \times 10^{-6}$	S=1.1	DESIG=8
Γ_{505}	$f_0(980) K^+ \times$ B$(f_0(980) \to K^+ K^-)$	$(9.4 \pm 3.2) \times 10^{-6}$		DESIG=428
Γ_{506}	$a_2(1320) K^+ \times$ B$(a_2(1320) \to K^+ K^-)$	$< 1.1 \times 10^{-6}$	CL=90%	DESIG=429
Γ_{507}	$X_0(1550) K^+ \times$ B$(X_0(1550) \to K^+ K^-)$	$(4.3 \pm 0.7) \times 10^{-6}$		DESIG=450
Γ_{508}	$\phi(1680) K^+ \times$ B$(\phi(1680) \to K^+ K^-)$	$< 8 \times 10^{-7}$	CL=90%	DESIG=431
Γ_{509}	$f_0(1710) K^+ \times$ B$(f_0(1710) \to K^+ K^-)$	$(1.1 \pm 0.6) \times 10^{-6}$		DESIG=449
Γ_{510}	$K^+ K^- K^+$ nonresonant	$(2.38 {}^{+0.28}_{-0.50}) \times 10^{-5}$		DESIG=231
Γ_{511}	$K^*(892)^+ K^+ K^-$	$(3.6 \pm 0.5) \times 10^{-5}$		DESIG=164
Γ_{512}	$K^*(892)^+ \phi$	$(10.0 \pm 2.0) \times 10^{-6}$	S=1.7	DESIG=156
Γ_{513}	$K^0 K^+ K^- \pi^+$	$(3.40 \pm 0.33) \times 10^{-4}$		DESIG=797
Γ_{514}	$J/\psi K^+,\ J/\psi \to K^0 K^- \pi^+$	$(5.4 \pm 1.2) \times 10^{-6}$		DESIG=800
Γ_{515}	$\chi_{c1} K^+,\ \chi_{c1} \to K^0 K^- \pi^+$	$(2.25 \pm 0.25) \times 10^{-6}$		DESIG=801
Γ_{516}	$\eta_c K^+,\ \eta_c \to K^0 K^- \pi^+$	$(2.83 \pm 0.30) \times 10^{-5}$		DESIG=803
Γ_{517}	$\eta_c(2S) K^+,\ \eta_c(2S) \to K^0 K^- \pi^+$	$(3.3 \pm 0.4) \times 10^{-6}$		DESIG=802
Γ_{518}	$K^0 K^+ K^+ \pi^-$	$(2.80 \pm 0.30) \times 10^{-4}$		DESIG=798
Γ_{519}	$J/\psi K^+,\ J/\psi \to K^0 K^+ \pi^-$	$(5.4 \pm 1.3) \times 10^{-6}$		DESIG=804
Γ_{520}	$\chi_{c1} K^+,\ \chi_{c1} \to K^0 K^+ \pi^-$	$(2.06 \pm 0.32) \times 10^{-6}$		DESIG=805
Γ_{521}	$\eta_c K^+,\ \eta_c \to K^0 K^+ \pi^-$	$(3.00 \pm 0.34) \times 10^{-5}$		DESIG=806
Γ_{522}	$\eta_c(2S) K^+,\ \eta_c(2S) \to K^0 K^+ \pi^-$	$(3.1 \pm 0.6) \times 10^{-6}$		DESIG=807
Γ_{523}	$\phi (K\pi)^{*+}_0$	$(8.3 \pm 1.6) \times 10^{-6}$		DESIG=518
Γ_{524}	$\phi K_1(1270)^+$	$(6.1 \pm 1.9) \times 10^{-6}$		DESIG=519
Γ_{525}	$\phi K_1(1400)^+$	$< 3.2 \times 10^{-6}$	CL=90%	DESIG=157
Γ_{526}	$\phi K^*(1410)^+$	$< 4.3 \times 10^{-6}$	CL=90%	DESIG=520
Γ_{527}	$\phi K^*_0(1430)^+$	$(7.0 \pm 1.6) \times 10^{-6}$		DESIG=521
Γ_{528}	$\phi K^*_2(1430)^+$	$(8.4 \pm 2.1) \times 10^{-6}$		DESIG=158
Γ_{529}	$\phi K^*_2(1770)^+$	$< 1.50 \times 10^{-5}$	CL=90%	DESIG=522
Γ_{530}	$\phi K^*_2(1820)^+$	$< 1.63 \times 10^{-5}$	CL=90%	DESIG=523
Γ_{531}	$a_1^+ K^{*0}$	$< 3.6 \times 10^{-6}$	CL=90%	DESIG=554
Γ_{532}	$K^+ \phi \phi$	$(4.2 \pm 0.8) \times 10^{-6}$	S=2.2	DESIG=325
Γ_{533}	$\eta' \eta' K^+$	$< 2.5 \times 10^{-5}$	CL=90%	DESIG=452
Γ_{534}	$\omega \phi K^+$	$< 1.9 \times 10^{-6}$	CL=90%	DESIG=540
Γ_{535}	$X(1812) K^+ \times$ B$(X \to \omega \phi)$	$< 3.2 \times 10^{-7}$	CL=90%	DESIG=541
Γ_{536}	$K^*(892)^+ \gamma$	$(3.92 \pm 0.22) \times 10^{-5}$	S=1.7	DESIG=9
Γ_{537}	$K_1(1270)^+ \gamma$	$(4.4 {}^{+0.7}_{-0.6}) \times 10^{-5}$		DESIG=53
Γ_{538}	$\eta K^+ \gamma$	$(7.9 \pm 0.9) \times 10^{-6}$		DESIG=403
Γ_{539}	$\eta' K^+ \gamma$	$(2.9 {}^{+1.0}_{-0.9}) \times 10^{-6}$		DESIG=451
Γ_{540}	$\phi K^+ \gamma$	$(2.7 \pm 0.4) \times 10^{-6}$	S=1.2	DESIG=347
Γ_{541}	$K^+ \pi^- \pi^+ \gamma$	$(2.58 \pm 0.15) \times 10^{-5}$	S=1.3	DESIG=307
Γ_{542}	$K^*(892)^0 \pi^+ \gamma$	$(2.33 \pm 0.12) \times 10^{-5}$		DESIG=308
Γ_{543}	$K^+ \rho^0 \gamma$	$(8.2 \pm 0.9) \times 10^{-6}$		DESIG=309
Γ_{544}	$(K^+ \pi^-)_{\mathrm{NR}} \pi^+ \gamma$	$(9.9 {}^{+1.7}_{-2.0}) \times 10^{-6}$		DESIG=310
Γ_{545}	$K^0 \pi^+ \pi^0 \gamma$	$(4.6 \pm 0.5) \times 10^{-5}$		DESIG=474
Γ_{546}	$K_1(1400)^+ \gamma$	$(10 {}^{+5}_{-4}) \times 10^{-6}$		DESIG=54
Γ_{547}	$K^*(1410)^+ \gamma$	$(2.7 {}^{+0.8}_{-0.6}) \times 10^{-5}$		DESIG=686
Γ_{548}	$K^*_0(1430)^0 \pi^+ \gamma$	$(1.32 {}^{+0.26}_{-0.32}) \times 10^{-6}$		DESIG=685
Γ_{549}	$K^*_2(1430)^+ \gamma$	$(1.4 \pm 0.4) \times 10^{-5}$		DESIG=55
Γ_{550}	$K^*(1680)^+ \gamma$	$(6.7 {}^{+1.7}_{-1.4}) \times 10^{-5}$		DESIG=56
Γ_{551}	$K^*_3(1780)^+ \gamma$	$< 3.9 \times 10^{-5}$	CL=90%	DESIG=57
Γ_{552}	$K^*_4(2045)^+ \gamma$	$< 9.9 \times 10^{-3}$	CL=90%	DESIG=58

Light unflavored meson modes

NODE=S041;CLUMP=E

Γ_{553}	$\rho^+\gamma$	$(1.16 \pm 0.17) \times 10^{-6}$		DESIG=267
Γ_{554}	$\pi^+\pi^0$	$(5.31 \pm 0.26) \times 10^{-6}$		DESIG=16
Γ_{555}	$\pi^+\pi^+\pi^-$	$(1.52 \pm 0.14) \times 10^{-5}$		DESIG=63
Γ_{556}	$\rho^0\pi^+$	$(8.3 \pm 1.2) \times 10^{-6}$		DESIG=4
Γ_{557}	$\pi^+ f_0(980),\ f_0 \to \pi^+\pi^-$	$< 1.5 \times 10^{-6}$	CL=90%	DESIG=61
Γ_{558}	$\pi^+ f_2(1270)$	$(2.2 {}^{+0.7}_{-0.4}) \times 10^{-6}$		DESIG=62
Γ_{559}	$\rho(1450)^0\pi^+,\ \rho^0 \to \pi^+\pi^-$	$(1.4 {}^{+0.6}_{-0.9}) \times 10^{-6}$		DESIG=406
Γ_{560}	$\rho(1450)^0\pi^+,\ \rho^0 \to K^+K^-$	$(1.60 \pm 0.14) \times 10^{-6}$		DESIG=735
Γ_{561}	$f_0(1370)\pi^+,\ f_0 \to \pi^+\pi^-$	$< 4.0 \times 10^{-6}$	CL=90%	DESIG=407
Γ_{562}	$f_0(1370)\pi^+,\ f_0 \to \pi^0\pi^0$	$< 1.1 \times 10^{-6}$	CL=90%	DESIG=780
Γ_{563}	$f_0(500)\pi^+,\ f_0 \to \pi^+\pi^-$	$< 4.1 \times 10^{-6}$	CL=90%	DESIG=408
Γ_{564}	$\pi^+\pi^-\pi^+$ nonresonant	$(5.3 {}^{+1.5}_{-1.1}) \times 10^{-6}$		DESIG=228
Γ_{565}	$\pi^+\pi^0\pi^0$	$(1.90 \pm 0.21) \times 10^{-5}$		DESIG=73
Γ_{566}	$\rho^+\pi^0$	$(1.06 {}^{+0.12}_{-0.13}) \times 10^{-5}$		DESIG=74
Γ_{567}	$\rho(1450)^+\pi^0,\ \rho^+ \to \pi^+\pi^0$	$(1.2 \pm 0.6) \times 10^{-6}$		DESIG=779
Γ_{568}	$\pi^+\pi^0\pi^0$ nonresonant	$< 6 \times 10^{-7}$	CL=90%	DESIG=785
Γ_{569}	$X pi+, X \to \pi^0\pi^0$	$(6.9 \pm 1.1) \times 10^{-6}$		DESIG=786
Γ_{570}	$\pi^+\pi^-\pi^+\pi^0$	$< 4.0 \times 10^{-3}$	CL=90%	DESIG=75
Γ_{571}	$\rho^+\rho^0$	$(2.40 \pm 0.19) \times 10^{-5}$		DESIG=76
Γ_{572}	$\rho^+ f_0(980),\ f_0 \to \pi^+\pi^-$	$< 2.0 \times 10^{-6}$	CL=90%	DESIG=458
Γ_{573}	$a_1(1260)^+\pi^0$	$(2.6 \pm 0.7) \times 10^{-5}$		DESIG=77
Γ_{574}	$a_1(1260)^0\pi^+$	$(2.0 \pm 0.6) \times 10^{-5}$		DESIG=78
Γ_{575}	$\omega\pi^+$	$(6.9 \pm 0.5) \times 10^{-6}$		DESIG=79
Γ_{576}	$\omega\rho^+$	$(1.59 \pm 0.21) \times 10^{-5}$		DESIG=253
Γ_{577}	$\eta\pi^+$	$(4.02 \pm 0.27) \times 10^{-6}$		DESIG=80
Γ_{578}	$\eta\rho^+$	$(7.0 \pm 2.9) \times 10^{-6}$	S=2.8	DESIG=247
Γ_{579}	$\eta'\pi^+$	$(2.7 \pm 0.9) \times 10^{-6}$	S=1.9	DESIG=242
Γ_{580}	$\eta'\rho^+$	$(9.7 \pm 2.2) \times 10^{-6}$		DESIG=243
Γ_{581}	$\phi\pi^+$	$(3.2 \pm 1.5) \times 10^{-8}$		DESIG=254
Γ_{582}	$\phi\rho^+$	$< 3.0 \times 10^{-6}$	CL=90%	DESIG=255
Γ_{583}	$a_0(980)^0\pi^+,\ a_0^0 \to \eta\pi^0$	$< 5.8 \times 10^{-6}$	CL=90%	DESIG=376
Γ_{584}	$a_0(980)^+\pi^0,\ a_0^+ \to \eta\pi^+$	$< 1.4 \times 10^{-6}$	CL=90%	DESIG=488
Γ_{585}	$\pi^+\pi^+\pi^+\pi^-\pi^-$	$< 8.6 \times 10^{-4}$	CL=90%	DESIG=81
Γ_{586}	$\rho^0 a_1(1260)^+$	$< 6.2 \times 10^{-4}$	CL=90%	DESIG=17
Γ_{587}	$\rho^0 a_2(1320)^+$	$< 7.2 \times 10^{-4}$	CL=90%	DESIG=18
Γ_{588}	$b_1^0\pi^+,\ b_1^0 \to \omega\pi^0$	$(6.7 \pm 2.0) \times 10^{-6}$		DESIG=492
Γ_{589}	$b_1^+\pi^0,\ b_1^+ \to \omega\pi^+$	$< 3.3 \times 10^{-6}$	CL=90%	DESIG=509
Γ_{590}	$\pi^+\pi^+\pi^+\pi^-\pi^-\pi^0$	$< 6.3 \times 10^{-3}$	CL=90%	DESIG=83
Γ_{591}	$b_1^+\rho^0,\ b_1^+ \to \omega\pi^+$	$< 5.2 \times 10^{-6}$	CL=90%	DESIG=545
Γ_{592}	$a_1(1260)^+ a_1(1260)^0$	< 1.3 %	CL=90%	DESIG=84
Γ_{593}	$b_1^0\rho^+,\ b_1^0 \to \omega\pi^0$	$< 3.3 \times 10^{-6}$	CL=90%	DESIG=546

Charged particle ($h^\pm$) modes

NODE=S041;CLUMP=I

$h^\pm = K^\pm$ or $\pi^\pm$

NODE=S041

Γ_{594}	$h^+\pi^0$	$(1.6 {}^{+0.7}_{-0.6}) \times 10^{-5}$		DESIG=249
Γ_{595}	ωh^+	$(1.38 {}^{+0.27}_{-0.24}) \times 10^{-5}$		DESIG=250
Γ_{596}	h^+X^0 (Familon)	$< 4.9 \times 10^{-5}$	CL=90%	DESIG=278
Γ_{597}	$K^+X^0,\ X^0 \to \mu^+\mu^-$	$< 1 \times 10^{-7}$	CL=95%	DESIG=708

Baryon modes

NODE=S041;CLUMP=F

Γ_{598}	$p\overline{p}\pi^+$		$(1.62 \pm 0.20) \times 10^{-6}$		DESIG=21
Γ_{599}	$p\overline{p}\pi^+$ nonresonant		$< 5.3 \times 10^{-5}$	CL=90%	DESIG=232
Γ_{600}	$p\overline{p}\pi^+\pi^0$		$(4.6 \pm 1.3) \times 10^{-6}$		DESIG=744
Γ_{601}	$p\overline{p}\pi^+\pi^+\pi^-$				DESIG=22
Γ_{602}	$p\overline{p}K^+$		$(5.9 \pm 0.5) \times 10^{-6}$	S=1.5	DESIG=313
Γ_{603}	$\Theta(1710)^{++}\overline{p}$, $\Theta^{++} \to pK^+$	[g]	$< 9.1 \times 10^{-8}$	CL=90%	DESIG=400
Γ_{604}	$f_J(2220)K^+$, $f_J \to p\overline{p}$	[g]	$< 4.1 \times 10^{-7}$	CL=90%	DESIG=401
Γ_{605}	$p\overline{n}\pi^0$		$< 6.3 \times 10^{-6}$	CL=90%	DESIG=808
Γ_{606}	$p\overline{\Lambda}(1520)$		$(3.1 \pm 0.6) \times 10^{-7}$		DESIG=397
Γ_{607}	$p\overline{p}K^+$ nonresonant		$< 8.9 \times 10^{-5}$	CL=90%	DESIG=233
Γ_{608}	$p\overline{p}K^*(892)^+$		$(3.6 {}^{+0.8}_{-0.7}) \times 10^{-6}$		DESIG=353
Γ_{609}	$f_J(2220)K^{*+}$, $f_J \to p\overline{p}$		$< 7.7 \times 10^{-7}$	CL=90%	DESIG=497
Γ_{610}	$p\overline{\Lambda}$		$(2.4 {}^{+1.0}_{-0.9}) \times 10^{-7}$		DESIG=23
Γ_{611}	$p\overline{\Lambda}\gamma$		$(2.4 {}^{+0.5}_{-0.4}) \times 10^{-6}$		DESIG=45
Γ_{612}	$p\overline{\Lambda}\pi^0$		$(3.0 {}^{+0.7}_{-0.6}) \times 10^{-6}$		DESIG=493
Γ_{613}	$p\overline{\Sigma}(1385)^0$		$< 4.7 \times 10^{-7}$	CL=90%	DESIG=494
Γ_{614}	$\Delta^+\overline{\Lambda}$		$< 8.2 \times 10^{-7}$	CL=90%	DESIG=495
Γ_{615}	$p\overline{\Sigma}\gamma$		$< 4.6 \times 10^{-6}$	CL=90%	DESIG=46
Γ_{616}	$p\overline{\Lambda}\pi^+\pi^-$		$(1.13 \pm 0.13) \times 10^{-5}$		DESIG=24
Γ_{617}	$p\overline{\Lambda}\pi^+\pi^-$ nonresonant		$(5.9 \pm 1.1) \times 10^{-6}$		DESIG=723
Γ_{618}	$p\overline{\Lambda}\rho^0$, $\rho^0 \to \pi^+\pi^-$		$(4.8 \pm 0.9) \times 10^{-6}$		DESIG=548
Γ_{619}	$p\overline{\Lambda}f_2(1270)$, $f_2 \to \pi^+\pi^-$		$(2.0 \pm 0.8) \times 10^{-6}$		DESIG=549
Γ_{620}	$p\overline{\Lambda}K^+K^-$		$(4.1 \pm 0.7) \times 10^{-6}$		DESIG=716
Γ_{621}	$p\overline{\Lambda}\phi$		$(8.0 \pm 2.2) \times 10^{-7}$		DESIG=718
Γ_{622}	$\overline{p}\Lambda K^+K^-$		$(3.7 \pm 0.6) \times 10^{-6}$		DESIG=717
Γ_{623}	$\Lambda\overline{\Lambda}\pi^+$		$< 9.4 \times 10^{-7}$	CL=90%	DESIG=356
Γ_{624}	$\Lambda\overline{\Lambda}K^+$		$(3.4 \pm 0.6) \times 10^{-6}$		DESIG=357
Γ_{625}	$\Lambda\overline{\Lambda}K^{*+}$		$(2.2 {}^{+1.2}_{-0.9}) \times 10^{-6}$		DESIG=539
Γ_{626}	$\Lambda(1520)\overline{\Lambda}K^+$		$(2.2 \pm 0.7) \times 10^{-6}$		DESIG=719
Γ_{627}	$\Lambda\overline{\Lambda}(1520)K^+$		$< 2.08 \times 10^{-6}$		DESIG=720
Γ_{628}	$\overline{\Delta}^0 p$		$< 1.38 \times 10^{-6}$	CL=90%	DESIG=64
Γ_{629}	$\Delta^{++}\overline{p}$		$< 1.4 \times 10^{-7}$	CL=90%	DESIG=65
Γ_{630}	$D^+ p\overline{p}$		$< 1.5 \times 10^{-5}$	CL=90%	DESIG=303
Γ_{631}	$D^*(2010)^+ p\overline{p}$		$< 1.5 \times 10^{-5}$	CL=90%	DESIG=304
Γ_{632}	$\overline{D}^0 p\overline{p}\pi^+$		$(3.72 \pm 0.27) \times 10^{-4}$		DESIG=607
Γ_{633}	$\overline{D}^{*0} p\overline{p}\pi^+$		$(3.73 \pm 0.32) \times 10^{-4}$		DESIG=608
Γ_{634}	$D^- p\overline{p}\pi^+\pi^-$		$(1.66 \pm 0.30) \times 10^{-4}$		DESIG=609
Γ_{635}	$D^{*-} p\overline{p}\pi^+\pi^-$		$(1.86 \pm 0.25) \times 10^{-4}$		DESIG=610
Γ_{636}	$p\overline{\Lambda}^0\overline{D}^0$		$(1.43 \pm 0.32) \times 10^{-5}$		DESIG=577
Γ_{637}	$p\overline{\Lambda}^0\overline{D}^*(2007)^0$		$< 5 \times 10^{-5}$	CL=90%	DESIG=578
Γ_{638}	$\overline{\Lambda}_c^- p\pi^+$		$(2.2 \pm 0.4) \times 10^{-4}$	S=2.5	DESIG=239
Γ_{639}	$\overline{\Lambda}_c^- pK^+$		$(8.9 \pm 1.6) \times 10^{-6}$		DESIG=817
Γ_{640}	$\overline{\Lambda}_c^- \Delta(1232)^{++}$		$< 1.9 \times 10^{-5}$	CL=90%	DESIG=469
Γ_{641}	$\overline{\Lambda}_c^- \Delta_X(1600)^{++}$		$(4.7 \pm 0.9) \times 10^{-5}$		DESIG=470
Γ_{642}	$\overline{\Lambda}_c^- \Delta_X(2420)^{++}$		$(3.7 \pm 0.8) \times 10^{-5}$		DESIG=471
Γ_{643}	$(\overline{\Lambda}_c^- p)_s\pi^+$	[h]	$(3.1 \pm 0.7) \times 10^{-5}$		DESIG=472
Γ_{644}	$\overline{\Sigma}_c(2520)^0 p$		$< 3 \times 10^{-6}$	CL=90%	DESIG=312
Γ_{645}	$\overline{\Sigma}_c(2800)^0 p$		$(2.6 \pm 0.9) \times 10^{-5}$		DESIG=529
Γ_{646}	$\overline{\Lambda}_c^- p\pi^+\pi^0$		$(1.8 \pm 0.6) \times 10^{-3}$		DESIG=236
Γ_{647}	$\overline{\Lambda}_c^- p\pi^+\pi^+\pi^-$		$(2.2 \pm 0.7) \times 10^{-3}$		DESIG=237
Γ_{648}	$\overline{\Lambda}_c^- p\pi^+\pi^+\pi^-\pi^0$		< 1.34 %	CL=90%	DESIG=238
Γ_{649}	$\Lambda_c^+\Lambda_c^- K^+$		$(4.9 \pm 0.7) \times 10^{-4}$		DESIG=463
Γ_{650}	$\Xi_c(2930)\Lambda_c^+$, $\Xi_c \to K^+\Lambda_c^-$		$(1.7 \pm 0.5) \times 10^{-4}$		DESIG=715

Γ_{651}	$\overline{\Sigma}_c(2455)^0 p$			$(2.9 \pm 0.6) \times 10^{-5}$		DESIG=311
Γ_{652}	$\overline{\Sigma}_c(2455)^0 p \pi^0$			$(3.5 \pm 1.1) \times 10^{-4}$		DESIG=67
Γ_{653}	$\overline{\Sigma}_c(2455)^0 p \pi^- \pi^+$			$(3.5 \pm 1.0) \times 10^{-4}$		DESIG=298
Γ_{654}	$\overline{\Sigma}_c(2455)^{--} p \pi^+ \pi^+$			$(2.35 \pm 0.18) \times 10^{-4}$		DESIG=299
Γ_{655}	$\overline{\Lambda}_c(2593)^- / \overline{\Lambda}_c(2625)^- p \pi^+$			$< 1.9 \times 10^{-4}$	CL=90%	DESIG=66
Γ_{656}	$\overline{\Xi}_c^0 \Lambda_c^+$			$(9.5 \pm 2.3) \times 10^{-4}$		DESIG=721
Γ_{657}	$\Xi_c^0 \Lambda_c^+$			$< 2.6 \times 10^{-5}$	CL=95%	DESIG=815
Γ_{658}	$\overline{\Xi}_c^0 \Lambda_c^+$, $\overline{\Xi}_c^0 \to \overline{\Xi}^+ \pi^-$			$(1.76 \pm 0.29) \times 10^{-5}$		DESIG=465
Γ_{659}	$\overline{\Xi}_c^0 \Lambda_c^+$, $\overline{\Xi}_c^0 \to \overline{\Lambda} K^+ \pi^-$			$(1.14 \pm 0.26) \times 10^{-5}$		DESIG=466
Γ_{660}	$\overline{\Xi}_c^0 \Lambda_c^+$, $\overline{\Xi}_c^0 \to \overline{p} K^- K^- \pi^+$			$(5.5 \pm 1.9) \times 10^{-6}$		DESIG=722
Γ_{661}	$\Lambda_c^+ \overline{\Xi}_c'^0$			$< 6.5 \times 10^{-4}$	CL=90%	DESIG=732
Γ_{662}	$\Lambda_c^+ \overline{\Xi}_c(2645)^0$			$< 7.9 \times 10^{-4}$	CL=90%	DESIG=733
Γ_{663}	$\Lambda_c^+ \overline{\Xi}_c(2790)^0$			$(1.1 \pm 0.4) \times 10^{-3}$		DESIG=734
Γ_{664}	$\Lambda_c^+ \psi_{DS}$					DESIG=835
Γ_{665}	$p \psi_{DS}$					DESIG=809

Lepton Family number (*LF*) or Lepton number (*L*) or Baryon number (*B*) violating modes, or/and $\Delta B = 1$ weak neutral current (*B1*) modes NODE=S041;CLUMP=G

Γ_{666}	$\pi^+ \ell^+ \ell^-$	*B1*	[a]	$< 4.9 \times 10^{-8}$	CL=90%	DESIG=475
Γ_{667}	$\pi^+ e^+ e^-$	*B1*		$< 5.4 \times 10^{-8}$	CL=90%	DESIG=85
Γ_{668}	$\pi^+ \mu^+ \mu^-$	*B1*		$(1.78 \pm 0.22) \times 10^{-8}$		DESIG=88
Γ_{669}	$\rho(770)^+ e^+ e^-$	*B1*		$< 4.67 \times 10^{-7}$	CL=90%	DESIG=818
Γ_{670}	$\rho(770)^+ \mu^+ \mu^-$	*B1*		$< 3.81 \times 10^{-7}$	CL=90%	DESIG=819
Γ_{671}	$\rho(770)^+ \ell^+ \ell^-$	*B1*		$< 1.89 \times 10^{-7}$	CL=90%	DESIG=820
Γ_{672}	$\pi^+ \nu \overline{\nu}$	*B1*		$< 1.4 \times 10^{-5}$	CL=90%	DESIG=404
Γ_{673}	$K^+ \ell^+ \ell^-$	*B1*	[a]	$(4.7 \pm 0.5) \times 10^{-7}$	S=2.3	DESIG=345
Γ_{674}	$K^+ e^+ e^-$	*B1*		$(5.6 \pm 0.6) \times 10^{-7}$		DESIG=11
Γ_{675}	$K^+ \mu^+ \mu^-$	*B1*		$(4.53 \pm 0.35) \times 10^{-7}$	S=1.8	DESIG=10
Γ_{676}	$K^+ \mu^+ \mu^-$ nonresonant	*B1*		$(4.37 \pm 0.27) \times 10^{-7}$		DESIG=704
Γ_{677}	$K^+ \tau^+ \tau^-$	*B1*		$< 2.25 \times 10^{-3}$	CL=90%	DESIG=690
Γ_{678}	$K^+ \overline{\nu} \nu$	*B1*		$(2.3 \pm 0.7) \times 10^{-5}$		DESIG=273
Γ_{679}	$\rho^+ \nu \overline{\nu}$	*B1*		$< 3.0 \times 10^{-5}$	CL=90%	DESIG=489
Γ_{680}	$K^*(892)^+ \ell^+ \ell^-$	*B1*	[a]	$(1.01 \pm 0.11) \times 10^{-6}$	S=1.1	DESIG=346
Γ_{681}	$K^*(892)^+ e^+ e^-$	*B1*		$(1.55 {}^{+0.40}_{-0.31}) \times 10^{-6}$		DESIG=161
Γ_{682}	$K^*(892)^+ \mu^+ \mu^-$	*B1*		$(9.6 \pm 1.0) \times 10^{-7}$		DESIG=162
Γ_{683}	$K^*(892)^+ \nu \overline{\nu}$	*B1*		$< 4.0 \times 10^{-5}$	CL=90%	DESIG=490
Γ_{684}	$K^+ \pi^+ \pi^- \mu^+ \mu^-$	*B1*		$(4.3 \pm 0.4) \times 10^{-7}$		DESIG=632
Γ_{685}	$D_s^+ \mu^+ \mu^-$	*B1*		$< 2.4 \times 10^{-8}$	CL=90%	DESIG=816
Γ_{686}	$\phi K^+ \mu^+ \mu^-$	*B1*		$(7.9 {}^{+2.1}_{-1.7}) \times 10^{-8}$		DESIG=633
Γ_{687}	$\overline{\Lambda} p \nu \overline{\nu}$	*B1*		$< 3.0 \times 10^{-5}$	CL=90%	DESIG=736
Γ_{688}	$\pi^+ e^+ \mu^-$	*LF*		$< 6.4 \times 10^{-3}$	CL=90%	DESIG=86
Γ_{689}	$\pi^+ e^- \mu^+$	*LF*		$< 6.4 \times 10^{-3}$	CL=90%	DESIG=87
Γ_{690}	$\pi^+ e^\pm \mu^\mp$	*LF*		$< 1.7 \times 10^{-7}$	CL=90%	DESIG=476
Γ_{691}	$\pi^+ e^+ \tau^-$	*LF*		$< 7.4 \times 10^{-5}$	CL=90%	DESIG=586
Γ_{692}	$\pi^+ e^- \tau^+$	*LF*		$< 2.0 \times 10^{-5}$	CL=90%	DESIG=587
Γ_{693}	$\pi^+ e^\pm \tau^\mp$	*LF*		$< 7.5 \times 10^{-5}$	CL=90%	DESIG=588
Γ_{694}	$\pi^+ \mu^+ \tau^-$	*LF*		$< 6.2 \times 10^{-5}$	CL=90%	DESIG=589
Γ_{695}	$\pi^+ \mu^- \tau^+$	*LF*		$< 4.5 \times 10^{-5}$	CL=90%	DESIG=590
Γ_{696}	$\pi^+ \mu^\pm \tau^\mp$	*LF*		$< 7.2 \times 10^{-5}$	CL=90%	DESIG=591
Γ_{697}	$K^+ e^+ \mu^-$	*LF*		$< 7.0 \times 10^{-9}$	CL=90%	DESIG=89
Γ_{698}	$K^+ e^- \mu^+$	*LF*		$< 6.4 \times 10^{-9}$	CL=90%	DESIG=90
Γ_{699}	$K^+ e^\pm \mu^\mp$	*LF*		$< 9.1 \times 10^{-8}$	CL=90%	DESIG=446
Γ_{700}	$K^+ e^+ \tau^-$	*LF*		$< 1.53 \times 10^{-5}$	CL=90%	DESIG=592
Γ_{701}	$K^+ e^- \tau^+$	*LF*		$< 1.5 \times 10^{-5}$	CL=90%	DESIG=593
Γ_{702}	$K^+ e^\pm \tau^\mp$	*LF*		$< 3.0 \times 10^{-5}$	CL=90%	DESIG=594

Γ_{703}	$K^+ \mu^+ \tau^-$	*LF*	$<$	2.45	$\times 10^{-5}$ CL=90%	DESIG=595
Γ_{704}	$K^+ \mu^- \tau^+$	*LF*	$<$	5.9	$\times 10^{-6}$ CL=90%	DESIG=596
Γ_{705}	$K^+ \mu^\pm \tau^\mp$	*LF*	$<$	4.8	$\times 10^{-5}$ CL=90%	DESIG=486
Γ_{706}	$K^*(892)^+ e^+ \mu^-$	*LF*	$<$	1.3	$\times 10^{-6}$ CL=90%	DESIG=447
Γ_{707}	$K^*(892)^+ e^- \mu^+$	*LF*	$<$	9.9	$\times 10^{-7}$ CL=90%	DESIG=448
Γ_{708}	$K^*(892)^+ e^\pm \mu^\mp$	*LF*	$<$	1.4	$\times 10^{-6}$ CL=90%	DESIG=296
Γ_{709}	$\pi^- e^+ e^+$	*L*	$<$	2.3	$\times 10^{-8}$ CL=90%	DESIG=91
Γ_{710}	$\pi^- \mu^+ \mu^+$	*L*	$<$	4.0	$\times 10^{-9}$ CL=95%	DESIG=93
Γ_{711}	$\pi^- e^+ \mu^+$	*L*	$<$	1.5	$\times 10^{-7}$ CL=90%	DESIG=92
Γ_{712}	$\rho^- e^+ e^+$	*L*	$<$	1.7	$\times 10^{-7}$ CL=90%	DESIG=291
Γ_{713}	$\rho^- \mu^+ \mu^+$	*L*	$<$	4.2	$\times 10^{-7}$ CL=90%	DESIG=295
Γ_{714}	$\rho^- e^+ \mu^+$	*L*	$<$	4.7	$\times 10^{-7}$ CL=90%	DESIG=294
Γ_{715}	$K^- e^+ e^+$	*L*	$<$	3.0	$\times 10^{-8}$ CL=90%	DESIG=94
Γ_{716}	$K^- \mu^+ \mu^+$	*L*	$<$	4.1	$\times 10^{-8}$ CL=90%	DESIG=96
Γ_{717}	$K^- e^+ \mu^+$	*L*	$<$	1.6	$\times 10^{-7}$ CL=90%	DESIG=95
Γ_{718}	$K^*(892)^- e^+ e^+$	*L*	$<$	4.0	$\times 10^{-7}$ CL=90%	DESIG=290
Γ_{719}	$K^*(892)^- \mu^+ \mu^+$	*L*	$<$	5.9	$\times 10^{-7}$ CL=90%	DESIG=292
Γ_{720}	$K^*(892)^- e^+ \mu^+$	*L*	$<$	3.0	$\times 10^{-7}$ CL=90%	DESIG=293
Γ_{721}	$D^- e^+ e^+$	*L*	$<$	2.6	$\times 10^{-6}$ CL=90%	DESIG=572
Γ_{722}	$D^- e^+ \mu^+$	*L*	$<$	1.8	$\times 10^{-6}$ CL=90%	DESIG=573
Γ_{723}	$D^- \mu^+ \mu^+$	*L*	$<$	6.9	$\times 10^{-7}$ CL=95%	DESIG=574
Γ_{724}	$D^{*-} \mu^+ \mu^+$	*L*	$<$	2.4	$\times 10^{-6}$ CL=95%	DESIG=604
Γ_{725}	$D_s^- \mu^+ \mu^+$	*L*	$<$	5.8	$\times 10^{-7}$ CL=95%	DESIG=605
Γ_{726}	$\overline{D}^0 \pi^- \mu^+ \mu^+$	*L*	$<$	1.5	$\times 10^{-6}$ CL=95%	DESIG=606
Γ_{727}	$\Lambda^0 \mu^+$	*L*,*B*	$<$	6	$\times 10^{-8}$ CL=90%	DESIG=567
Γ_{728}	$\Lambda^0 e^+$	*L*,*B*	$<$	3.2	$\times 10^{-8}$ CL=90%	DESIG=568
Γ_{729}	$\overline{\Lambda}^0 \mu^+$	*L*,*B*	$<$	6	$\times 10^{-8}$ CL=90%	DESIG=569
Γ_{730}	$\overline{\Lambda}^0 e^+$	*L*,*B*	$<$	8	$\times 10^{-8}$ CL=90%	DESIG=570

[*a*] An ℓ indicates an *e* or a μ mode, not a sum over these modes. LINKAGE=DX

[*b*] An $CP(\pm1)$ indicates the CP=+1 and CP=−1 eigenstates of the D^0-$\overline{D}^0$ system. LINKAGE=CPE

[*c*] *D* denotes D^0 or $\overline{D}^0$. LINKAGE=DD

[*d*] D^{*0}_{CP+} decays into $D^0 \pi^0$ with the D^0 reconstructed in *CP*-even eigenstates $K^+ K^-$ and $\pi^+ \pi^-$. LINKAGE=CPD

[*e*] $\overline{D}^{**}$ represents an excited state with mass 2.2 < M < 2.8 GeV/c^2. LINKAGE=DSZ

[*f*] $\chi_{c1}(3872)^+$ is a hypothetical charged partner of the $\chi_{c1}(3872)$. LINKAGE=RX

[*g*] $\Theta(1710)^{++}$ is a possible narrow pentaquark state and $G(2220)$ is a possible glueball resonance. LINKAGE=PG

[*h*] $(\overline{\Lambda}_c^- p)_s$ denotes a low-mass enhancement near 3.35 GeV/c^2. LINKAGE=LP

FIT INFORMATION

An overall fit to 21 branching ratios uses 66 measurements to determine 13 parameters. The overall fit has a $\chi^2 = 66.7$ for 53 degrees of freedom.

The following *off-diagonal* array elements are the correlation coefficients $\left\langle\delta x_i \delta x_j\right\rangle/(\delta x_i \cdot \delta x_j)$, in percent, from the fit to the branching fractions, $x_i \equiv \Gamma_i/\Gamma_{\rm total}$.

	x_{10}	x_{13}	x_{59}	x_{116}	x_{158}	x_{316}	x_{321}	x_{339}	x_{352}	x_{411}
x_{13}	33									
x_{59}	0	0								
x_{116}	0	0	5							
x_{158}	0	0	1	14						
x_{316}	0	0	0	0	0					
x_{321}	0	0	0	0	0	0				
x_{339}	0	0	0	0	0	18	0			
x_{352}	0	0	0	0	0	38	0	7		
x_{411}	0	0	0	0	0	0	0	0	0	
x_{483}	0	0	0	0	0	0	0	0	0	8
x_{675}	0	0	0	0	0	14	0	3	5	0
x_{682}	0	0	0	0	0	0	5	0	0	0

	x_{483}	x_{675}
x_{675}	0	
x_{682}	0	0

FIT INFORMATION

A multiparticle fit to $\eta_c(1S)$, $J/\psi(1S)$, $\psi(2S)$, $h_c(1P)$, and $B^\pm$ with the total width, 10 combinations of partial widths obtained from integrated cross section, and 38 branching ratios uses 115 measurements to determine 19 parameters. The overall fit has a $\chi^2 = 215.5$ for 96 degrees of freedom.

B^+ BRANCHING RATIOS

NODE=S041215

$\Gamma(\ell^+\nu_\ell X)/\Gamma_{\rm total}$ Γ_1/Γ

NODE=S041S95
NODE=S041S95

VALUE (units 10^{-2})	*DOCUMENT ID*		*TECN*	*COMMENT*
10.99±0.28 OUR EVALUATION	(Produced by HFLAV)			
10.76±0.32 OUR AVERAGE	Error includes scale factor of 1.1.			
11.17±0.25±0.28	[1] URQUIJO	07	BELL	$e^+e^- \to \Upsilon(4S)$
10.28±0.26±0.39	[2] AUBERT,B	06Y	BABR	$e^+e^- \to \Upsilon(4S)$
10.25±0.57±0.65	[3] ARTUSO	97	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
11.15±0.26±0.41	[4] OKABE	05	BELL	Repl. by URQUIJO 07
10.1 ±1.8 ±1.5	ATHANAS	94	CLE2	Sup. by ARTUSO 97

→ UNCHECKED ←

[1] URQUIJO 07 report a measurement of (10.34 ± 023 ± 0.25)% for the partial branching fraction of $B^+ \to e^+\nu_e X_c$ decay with electron energy above 0.6 GeV. We converted the result to $B^+ \to e^+\nu_e X$ branching fraction.

NODE=S041S95;LINKAGE=UR

[2] The measurements are obtained for charged and neutral B mesons partial rates of semileptonic decay to electrons with momentum above 0.6 GeV/c in the B rest frame. The best precision on the ratio is achieved for a momentum threshold of 1.0 GeV: B($B^+ \to e^+\nu_e X$) / B($B^0 \to e^+\nu_e X$) = 1.074 ± 0.041 ± 0.026.

NODE=S041S95;LINKAGE=AE

[3] ARTUSO 97 uses partial reconstruction of $B \to D^*\ell\nu_\ell$ and inclusive semileptonic branching ratio from BARISH 96B (0.1049 ± 0.0017 ± 0.0043).

NODE=S041S95;LINKAGE=B

[4] The measurements are obtained for charged and neutral B mesons partial rates of semileptonic decay to electrons with momentum above 0.6 GeV/c in the B rest frame, and their ratio of B($B^+ \to e^+\nu_e X$)/B($B^0 \to e^+\nu_e X$) = 1.08 ± 0.05 ± 0.02.

NODE=S041S95;LINKAGE=OK

$\Gamma(e^+ \nu_e X_c)/\Gamma_{total}$ — Γ_2/Γ

NODE=S041S00

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
10.79±0.25±0.27	[1] URQUIJO	07	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Measure the independent B^+ and B^0 partial branching fractions with electron threshold energies of 0.4 GeV.

NODE=S041S00;LINKAGE=UR

$\Gamma(\ell^+ \nu_\ell X_u)/\Gamma_{total}$ — Γ_5/Γ

NODE=S041A53

Requires $E^*_\ell > 1$ GeV, where E^*_ℓ is letpon energy in B rest frame.

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
1.65±0.10±0.18	[1] CAO	21A	BELL	$e^+e^- \to \Upsilon(4S)$

[1] The correlation of 50% with B($B^0 \to \ell^+ \nu_\ell X_u$)(letpon energy in B rest frame $E^*_\ell >$ 1 GeV) was reported.

NODE=S041A53;LINKAGE=A

$\Gamma(\overline{D}^0 \ell^+ \nu_\ell)/\Gamma_{total}$ — Γ_7/Γ

NODE=S041R68

$\ell = e$ or μ, not sum over e and μ modes.

VALUE (%)	DOCUMENT ID		TECN	COMMENT
2.26±0.07 OUR EVALUATION	(Produced by HFLAV)			
2.29±0.08 OUR AVERAGE				
2.29±0.08±0.09	[1] AUBERT	10	BABR	$e^+e^- \to \Upsilon(4S)$
2.34±0.03±0.13	AUBERT	09A	BABR	$e^+e^- \to \Upsilon(4S)$
2.21±0.13±0.19	[2] BARTELT	99	CLE2	$e^+e^- \to \Upsilon(4S)$
1.6 ±0.6 ±0.3	[3] FULTON	91	CLEO	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2.33±0.09±0.09	[1] AUBERT	08Q	BABR	Repl. by AUBERT 09A
1.94±0.15±0.34	[4] ATHANAS	97	CLE2	Repl. by BARTELT 99

→ UNCHECKED ←

[1] Uses a fully reconstructed B meson as a tag on the recoil side.
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.
[3] FULTON 91 assumes equal production of $B^0\overline{B}^0$ and B^+B^- at the $\Upsilon(4S)$.
[4] ATHANAS 97 uses missing energy and missing momentum to reconstruct neutrino.

NODE=S041R68;LINKAGE=BE
NODE=S041R68;LINKAGE=L9
NODE=S041R68;LINKAGE=B
NODE=S041R68;LINKAGE=C

$\Gamma(\overline{D}^0 \ell^+ \nu_\ell)/\Gamma(\ell^+ \nu_\ell X)$ — Γ_7/Γ_1

NODE=S041C62

VALUE	DOCUMENT ID		TECN	COMMENT
0.255±0.009±0.009	[1] AUBERT	10	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Uses a fully reconstructed B meson on the recoil side.

NODE=S041C62;LINKAGE=AU

$\Gamma(\overline{D}^0 \ell^+ \nu_\ell)/\Gamma(D \ell^+ \nu_\ell X)$ — Γ_7/Γ_6

NODE=S041B04

VALUE	DOCUMENT ID		TECN	COMMENT
0.230±0.020 OUR AVERAGE				
0.25 ±0.06	[1] AAIJ	19AC	LHCB	pp at 7 and 8 TeV
0.227±0.014±0.016	[2] AUBERT	07AN	BABR	$e^+e^- \to \Upsilon(4S)$

[1] The relative branching fractions of $B^- \to D^0$, D^{*0}, D^{**0} in the $B^- \to D^0 X \mu^- \overline{\nu}$ channel are determined by fitting the distribution of the missing mass in $\overline{B}^{*0}_{s2} \to B^- K^+$ decays.
[2] Uses a fully reconstructed B meson on the recoil side.

NODE=S041B04;LINKAGE=A
NODE=S041B04;LINKAGE=AU

$\Gamma(\tau^+ \nu_\tau X)/\Gamma(\ell^+ \nu_\ell X)$ — Γ_8/Γ_1

NODE=S041D23

VALUE	DOCUMENT ID		TECN	COMMENT
0.228±0.016±0.036	[1] ADACHI	24B	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Measures the lepton in a primary decay of the signal B meson, while tagging the partner B in fully reconstructed hadronic decay modes.

NODE=S041D23;LINKAGE=A

$\Gamma(\tau^+ \nu_\tau X)/\Gamma(e^+ \nu_e X)$ — Γ_8/Γ_3

NODE=S041D24

VALUE	DOCUMENT ID		TECN	COMMENT
0.232±0.020±0.037	[1] ADACHI	24B	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Measures the lepton in a primary decay of the signal B meson, while tagging the partner B in fully reconstructed hadronic decay modes.

NODE=S041D24;LINKAGE=A

$\Gamma(\tau^+ \nu_\tau X)/\Gamma(\mu^+ \nu_\mu X)$ — Γ_8/Γ_4

NODE=S041D25

VALUE	DOCUMENT ID		TECN	COMMENT
0.222±0.027±0.050	[1] ADACHI	24B	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Measures the lepton in a primary decay of the signal B meson, while tagging the partner B in fully reconstructed hadronic decay modes.

NODE=S041D25;LINKAGE=A

$\Gamma(\overline{D}^0 \tau^+ \nu_\tau)/\Gamma_{total}$ Γ_9/Γ

NODE=S041C01
NODE=S041C01

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
0.77±0.22±0.12	[1] BOZEK	10	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.67±0.37±0.13	[2] AUBERT	08N	BABR	Repl. by AUBERT 09S

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C01;LINKAGE=EP

[2] Uses a fully reconstructed B meson as a tag on the recoil side. NODE=S041C01;LINKAGE=AU

$\Gamma(\overline{D}^0 \tau^+ \nu_\tau)/\Gamma(\overline{D}^0 \ell^+ \nu_\ell)$ Γ_9/Γ_7

NODE=S041C52
NODE=S041C52

VALUE	DOCUMENT ID		TECN	COMMENT
0.44 ±0.07 OUR AVERAGE				
0.441±0.060±0.066	[1] AAIJ	23AR	LHCB	pp at 7 and 8 TeV
0.429±0.082±0.052	[2,3] LEES	12D	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.314±0.170±0.049	[2] AUBERT	09S	BABR	Repl. by LEES 12D

[1] Uses $\tau^+ \rightarrow \mu^+ \nu_\mu \overline{\nu}_\tau$ and μ^+ as ℓ^+. NODE=S041C52;LINKAGE=A

[2] Uses a fully reconstructed B meson as a tag on the recoil side. NODE=S041C52;LINKAGE=AU

[3] Uses $\tau^+ \rightarrow e^+ \nu_e \overline{\nu}_\tau$ and $\tau^+ \rightarrow \mu^+ \nu_\mu \overline{\nu}_\tau$ and e^+ or μ^+ as ℓ^+. NODE=S041C52;LINKAGE=LE

$\Gamma(\overline{D}^*(2007)^0 \ell^+ \nu_\ell)/\Gamma_{total}$ Γ_{10}/Γ

NODE=S041R69

$\ell = e$ or μ, not sum over e and μ modes.

NODE=S041R69
NODE=S041R69

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
5.26±0.10 OUR EVALUATION (Produced by HFLAV)					
5.60±0.26 OUR FIT Error includes scale factor of 1.5.					
5.58±0.26 OUR AVERAGE Error includes scale factor of 1.5. See the ideogram below.					
5.40±0.02±0.21		AUBERT	09A	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
5.56±0.08±0.41		[1] AUBERT	08AT	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
6.50±0.20±0.43		[2] ADAM	03	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
6.6 ±1.6 ±1.5		[3] ALBRECHT	92C	ARG	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
5.83±0.15±0.30		[4] AUBERT	08Q	BABR	Repl. by AUBERT 09A
6.50±0.20±0.43		[5] BRIERE	02	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
5.13±0.54±0.64	302	[6] BARISH	95	CLE2	Repl. by ADAM 03
seen	398	[7] SANGHERA	93	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
4.1 ±0.8 $^{+0.8}_{-0.9}$		[8] FULTON	91	CLEO	$e^+ e^- \rightarrow \Upsilon(4S)$
7.0 ±1.8 ±1.4		[9] ANTREASYAN	90B	CBAL	$e^+ e^- \rightarrow \Upsilon(4S)$

→ UNCHECKED ←

[1] Measured using the dependence of $B^- \rightarrow D^{*0} e^- \overline{\nu}_e$ decay differential rate and the form factor description by CAPRINI 98. NODE=S041R69;LINKAGE=ER

[2] Simultaneous measurements of both $B^0 \rightarrow D^*(2010)^- \ell \nu$ and $B^+ \rightarrow \overline{D}(2007)^0 \ell \nu$. NODE=S041R69;LINKAGE=DM

[3] ALBRECHT 92C reports 0.058±0.014±0.013. We rescale using the method described in STONE 94 but with the updated PDG 94 B($D^0 \rightarrow K^- \pi^+$). Assumes equal production of $B^0 \overline{B}^0$ and $B^+ B^-$ at the $\Upsilon(4S)$. NODE=S041R69;LINKAGE=C

[4] Uses a fully reconstructed B meson as a tag on the recoil side. NODE=S041R69;LINKAGE=BE

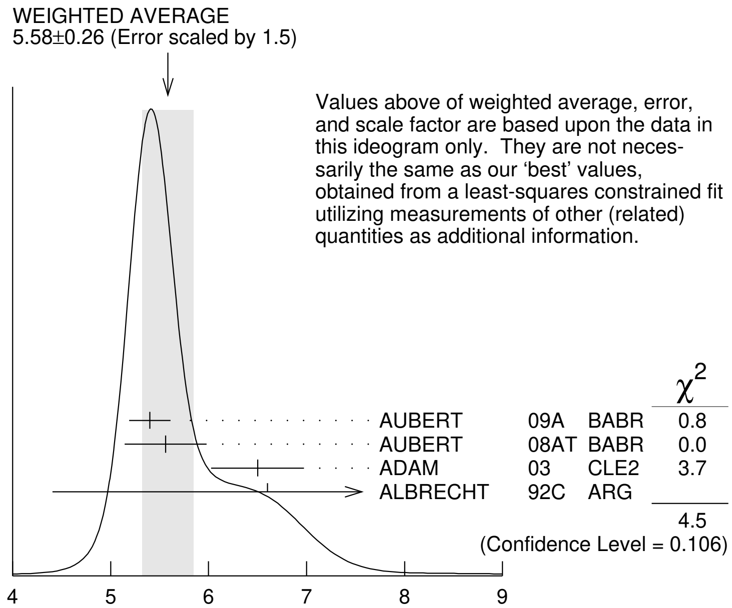
[5] The results are based on the same analysis and data sample reported in ADAM 03. NODE=S041R69;LINKAGE=R6

[6] BARISH 95 use B($D^0 \rightarrow K^- \pi^+$) = (3.91 ± 0.08 ± 0.17)% and B($D^{*0} \rightarrow D^0 \pi^0$) = (63.6 ± 2.3 ± 3.3)%. NODE=S041R69;LINKAGE=B1

[7] Combining $\overline{D}^{*0} \ell^+ \nu_\ell$ and $\overline{D}^{*-} \ell^+ \nu_\ell$ SANGHERA 93 test $V-A$ structure and fit the decay angular distributions to obtain $A_{FB} = 3/4*(\Gamma^- - \Gamma^+)/\Gamma = 0.14 \pm 0.06 \pm 0.03$. Assuming a value of V_{cb}, they measure V, A_1, and A_2, the three form factors for the $D^* \ell \nu_\ell$ decay, where results are slightly dependent on model assumptions. NODE=S041R69;LINKAGE=A

[8] Assumes equal production of $B^0 \overline{B}^0$ and $B^+ B^-$ at the $\Upsilon(4S)$. Uncorrected for D and D^* branching ratio assumptions. NODE=S041R69;LINKAGE=B

[9] ANTREASYAN 90B is average over B and $\overline{D}^*(2010)$ charge states. NODE=S041R69;LINKAGE=62



$\Gamma\left(\overline{D}^*(2007)^0 \ell^+ \nu_\ell\right)/\Gamma_{\text{total}}$ Γ_{10}/Γ

$\Gamma\left(\overline{D}^*(2007)^0 \ell^+ \nu_\ell\right)/\Gamma\left(D \ell^+ \nu_\ell X\right)$ Γ_{10}/Γ_6

NODE=S041B05
NODE=S041B05

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.582±0.018±0.030	[1] AUBERT	07AN	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Uses a fully reconstructed B meson on the recoil side.

NODE=S041B05;LINKAGE=AU

$\Gamma\left(\overline{D}^*(2007)^0 e^+ \nu_e\right)/\Gamma\left(\overline{D}^*(2007)^0 \mu^+ \nu_\mu\right)$ Γ_{11}/Γ_{12}

NODE=S041A86
NODE=S041A86

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.976±0.029±0.023	PRIM	23	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

$\Gamma\left(\overline{D}^*(2007)^0 \tau^+ \nu_\tau\right)/\Gamma_{\text{total}}$ Γ_{13}/Γ

NODE=S041C02
NODE=S041C02

VALUE (units 10^{-2})	*DOCUMENT ID*		*TECN*	*COMMENT*
1.88±0.20 OUR FIT				
$\mathbf{2.12^{+0.28}_{-0.27}\pm0.29}$	[1] BOZEK	10	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2.25±0.48±0.28	[2] AUBERT	08N	BABR	Repl. by AUBERT 09S

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.
[2] Uses a fully reconstructed B meson as a tag on the recoil side.

NODE=S041C02;LINKAGE=EP
NODE=S041C02;LINKAGE=AU

$\Gamma\left(\overline{D}^*(2007)^0 \tau^+ \nu_\tau\right)/\Gamma\left(\overline{D}^*(2007)^0 \ell^+ \nu_\ell\right)$ Γ_{13}/Γ_{10}

NODE=S041C53
NODE=S041C53

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.335±0.034 OUR FIT				
0.322±0.032±0.022	[1,2] LEES	12D	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.346±0.073±0.034	[1] AUBERT	09S	BABR	Repl. by LEES 12D

[1] Uses a fully reconstructed B meson as a tag on the recoil side.
[2] Uses $\tau^+ \rightarrow e^+ \nu_e \overline{\nu}_\tau$ and $\tau^+ \rightarrow \mu^+ \nu_\mu \overline{\nu}_\tau$ and e^+ or μ^+ as ℓ^+.

NODE=S041C53;LINKAGE=AU
NODE=S041C53;LINKAGE=LE

$\Gamma\left(D^{(*)} n\pi \ell^+ \nu_\ell (n \geq 1)\right)/\Gamma\left(D \ell^+ \nu_\ell X\right)$ Γ_{14}/Γ_6

NODE=S041B06
NODE=S041B06

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.193±0.022 OUR AVERAGE				
0.21 ±0.07	[1,2] AAIJ	19AC	LHCB	pp at 7 and 8 TeV
0.191±0.013±0.019	[3] AUBERT	07AN	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] The relative branching fractions of $B^- \rightarrow D^0$, D^{*0}, D^{**0} in the $B^- \rightarrow D^0 X \mu^- \overline{\nu}$ channel are determined by fitting the distribution of the missing mass in $\overline{B}^{*0}_{s2} \rightarrow B^- K^+$ decays.

NODE=S041B06;LINKAGE=A

[2] In this measurement of $f_{D^{**0}} = B(B^- \rightarrow (D^{**0} \rightarrow D^0 X)\mu^- \overline{\nu})/B(B^- \rightarrow D^0 X \mu^- \overline{\nu})$, D^{**0} refers collectively to L = 1 states $D_0^*(2400)$, $D_1(2420)$, $D_1(2430)$, and $D_2^*(2460)$, as well as other resonances such as radially excited D mesons, and to nonresonant contributions with additional pions.

NODE=S041B06;LINKAGE=B

[3] Uses a fully reconstructed B meson on the recoil side.

NODE=S041B06;LINKAGE=AU

$\Gamma(D^- \pi^+ \ell^+ \nu_\ell)/\Gamma_{total}$ Γ_{15}/Γ

NODE=S041Q54
NODE=S041Q54

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
3.82±0.20 OUR AVERAGE				
3.78±0.13±0.17	MEIER	23	BELL	$e^+ e^- \to \Upsilon(4S)$
4.2 ±0.6 ±0.3	[1] AUBERT	08Q	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
4.55±0.27±0.39	VOSSEN	18	BELL	Repl. by MEIER 23
4.2 ±0.6 ±0.1	[1,2] LIVENTSEV	08	BELL	Repl. by VOSSEN 18
5.2 ±0.9 ±0.2	[3] LIVENTSEV	05	BELL	Repl. by LIVENTSEV 08

[1] Uses a fully reconstructed B meson as a tag on the recoil side. NODE=S041Q54;LINKAGE=BE

[2] LIVENTSEV 08 reports $(4.0 \pm 0.4 \pm 0.6) \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D^- \pi^+ \ell^+ \nu_\ell)/\Gamma_{total}]$ / $[B(B^+ \to \overline{D}^0 \ell^+ \nu_\ell)]$ assuming $B(B^+ \to \overline{D}^0 \ell^+ \nu_\ell) = (2.15 \pm 0.22) \times 10^{-2}$, which we rescale to our best value $B(B^+ \to \overline{D}^0 \ell^+ \nu_\ell) = (2.26 \pm 0.07) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041Q54;LINKAGE=LV

[3] LIVENTSEV 05 reports $[\Gamma(B^+ \to D^- \pi^+ \ell^+ \nu_\ell)/\Gamma_{total}]$ / $[B(B^0 \to D^- \ell^+ \nu_\ell)]$ $= 0.25 \pm 0.03 \pm 0.03$ which we multiply by our best value $B(B^0 \to D^- \ell^+ \nu_\ell) = (2.10 \pm 0.07) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041Q54;LINKAGE=LI

$\Gamma(\overline{D}_2^*(2460)^0 \ell^+ \nu_\ell,\ \overline{D}_2^{*0} \to D^- \pi^+)/\Gamma_{total}$ Γ_{16}/Γ

NODE=S041C07
NODE=S041C07

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
1.59±0.10 OUR AVERAGE				
1.63±0.11±0.07	MEIER	23	BELL	$e^+ e^- \to \Upsilon(4S)$
1.42±0.15±0.15	[1] AUBERT	09Y	BABR	$e^+ e^- \to \Upsilon(4S)$
1.5 ±0.2 ±0.2	[2] AUBERT	08BL	BABR	$e^+ e^- \to \Upsilon(4S)$
2.2 ±0.3 ±0.4	[2] LIVENTSEV	08	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Uses a simultaneous fit of all B semileptonic decays without full reconstruction of events. AUBERT 09Y reports $B(B^+ \to \overline{D}_2^*(2460)^0 \ell^+ \nu_\ell) \cdot B(\overline{D}_2^*(2460)^0 \to D^{(*)-} \pi^+) = (2.29 \pm 0.23 \pm 0.21) \times 10^{-3}$ and the authors have provided us the individual measurement. NODE=S041C07;LINKAGE=AU

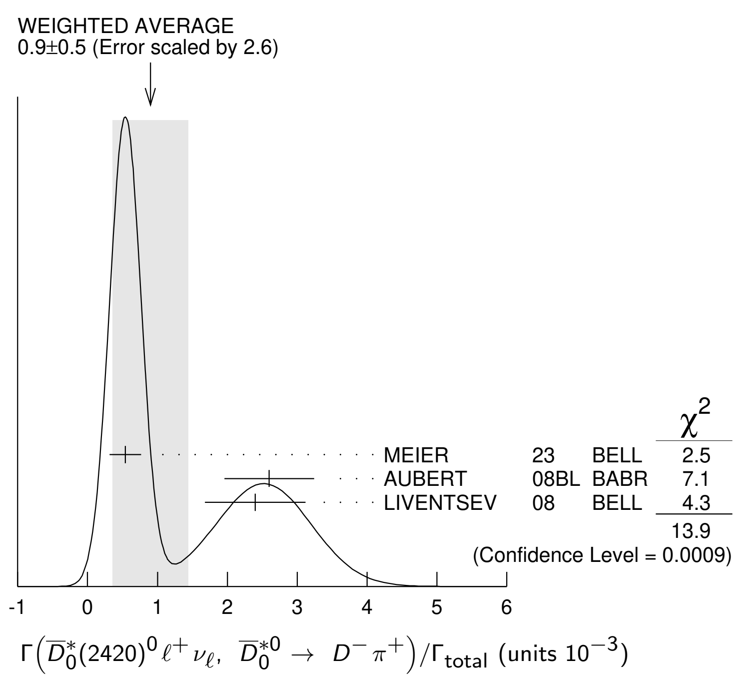
[2] Uses a fully reconstructed B meson as a tag on the recoil side. NODE=S041C07;LINKAGE=BE

$\Gamma(\overline{D}_0^*(2420)^0 \ell^+ \nu_\ell,\ \overline{D}_0^{*0} \to D^- \pi^+)/\Gamma_{total}$ Γ_{17}/Γ

NODE=S041C06
NODE=S041C06

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
0.9 ±0.5 OUR AVERAGE	Error includes scale factor of 2.6. See the ideogram below.			
0.54±0.22±0.05	MEIER	23	BELL	$e^+ e^- \to \Upsilon(4S)$
2.6 ±0.5 ±0.4	[1] AUBERT	08BL	BABR	$e^+ e^- \to \Upsilon(4S)$
2.4 ±0.4 ±0.6	[1] LIVENTSEV	08	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Uses a fully reconstructed B meson as a tag on the recoil side. NODE=S041C06;LINKAGE=BE



$\Gamma(D^{*-}\pi^+\ell^+\nu_\ell)/\Gamma_{total}$ Γ_{18}/Γ

NODE=S041Q55
NODE=S041Q55

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
5.42±0.28 OUR AVERAGE				
5.30±0.19±0.25	MEIER	23	BELL	$e^+e^- \to \Upsilon(4S)$
5.9 ±0.5 ±0.4	[1] AUBERT	08Q	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
6.03±0.43±0.38	VOSSEN	18	BELL	Repl. by MEIER 23
6.7 ±1.1 ±0.2	[1,2] LIVENTSEV	08	BELL	Repl. by VOSSEN 18
5.8 ±1.4 ±0.1	[3,4] LIVENTSEV	05	BELL	Repl. by LIVENTSEV 08

[1] Uses a fully reconstructed B meson as a tag on the recoil side. NODE=S041Q55;LINKAGE=BE

[2] LIVENTSEV 08 reports $(6.4 \pm 0.8 \pm 0.9) \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D^{*-}\pi^+\ell^+\nu_\ell)/\Gamma_{total}]$ / $[B(B^+ \to \overline{D}^0\ell^+\nu_\ell)]$ assuming $B(B^+ \to \overline{D}^0\ell^+\nu_\ell) = (2.15 \pm 0.22) \times 10^{-2}$, which we rescale to our best value $B(B^+ \to \overline{D}^0\ell^+\nu_\ell) = (2.26 \pm 0.07) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041Q55;LINKAGE=LV

[3] Excludes D^{*+} contribution to $D\pi$ modes. NODE=S041Q55;LINKAGE=EC

[4] LIVENTSEV 05 reports $[\Gamma(B^+ \to D^{*-}\pi^+\ell^+\nu_\ell)/\Gamma_{total}]$ / $[B(B^0 \to D^*(2010)^-\ell^+\nu_\ell)] = 0.12 \pm 0.02 \pm 0.02$ which we multiply by our best value $B(B^0 \to D^*(2010)^-\ell^+\nu_\ell) = (4.87 \pm 0.09) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041Q55;LINKAGE=LI

$\Gamma(\overline{D}_1(2420)^0\ell^+\nu_\ell,\ \overline{D}{}_1^0 \to D^{*-}\pi^+)/\Gamma_{total}$ Γ_{19}/Γ

NODE=S041B32
NODE=S041B32

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
2.84±0.17 OUR AVERAGE	Error includes scale factor of 1.1.			
2.49±0.23±0.14	MEIER	23	BELL	$e^+e^- \to \Upsilon(4S)$
2.97±0.17±0.17	[1] AUBERT	09Y	BABR	$e^+e^- \to \Upsilon(4S)$
2.9 ±0.3 ±0.3	[2] AUBERT	08BL	BABR	$e^+e^- \to \Upsilon(4S)$
4.2 ±0.7 ±0.7	[2] LIVENTSEV	08	BELL	$e^+e^- \to \Upsilon(4S)$
3.73±0.85±0.57	[3] ANASTASSOV	98	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Uses a simultaneous measurement of all B semileptonic decays without full reconstruction of events. NODE=S041B32;LINKAGE=AU

[2] Uses a fully reconstructed B meson as a tag on the recoil side. NODE=S041B32;LINKAGE=BE

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B32;LINKAGE=EP

$\Gamma(\overline{D}'_1(2430)^0\ell^+\nu_\ell,\ \overline{D}{}_1'^0 \to D^{*-}\pi^+)/\Gamma_{total}$ Γ_{20}/Γ

NODE=S041C05
NODE=S041C05

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
1.7 ±0.6 OUR AVERAGE		Error includes scale factor of 1.8.			
1.38±0.36±0.08		MEIER	23	BELL	$e^+e^- \to \Upsilon(4S)$
2.7 ±0.4 ±0.5		[1] AUBERT	08BL	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.7	90	[1] LIVENTSEV	08	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Uses a fully reconstructed B meson as a tag on the recoil side. NODE=S041C05;LINKAGE=BE

$\Gamma(\overline{D}{}_2^*(2460)^0\ell^+\nu_\ell,\ \overline{D}{}_2^{*0} \to D^{*-}\pi^+)/\Gamma_{total}$ Γ_{21}/Γ

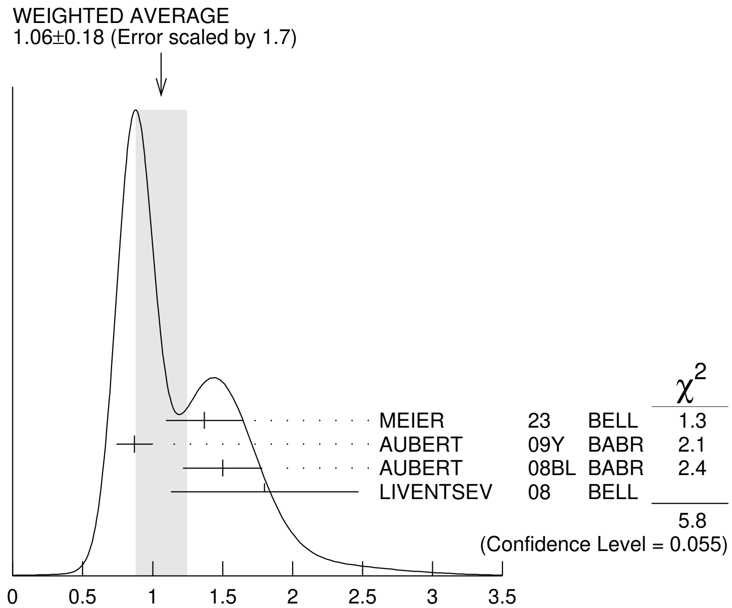
NODE=S041B33
NODE=S041B33

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
1.06±0.18 OUR AVERAGE		Error includes scale factor of 1.7. See the ideogram below.			
1.37±0.26±0.09		MEIER	23	BELL	$e^+e^- \to \Upsilon(4S)$
0.87±0.11±0.07		[1] AUBERT	09Y	BABR	$e^+e^- \to \Upsilon(4S)$
1.5 ±0.2 ±0.2		[2] AUBERT	08BL	BABR	$e^+e^- \to \Upsilon(4S)$
1.8 ±0.6 ±0.3		[2] LIVENTSEV	08	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1.6	90	[3] ANASTASSOV	98	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Uses a simultaneous fit of all B semileptonic decays without full reconstruction of events. AUBERT 09Y reports $B(B^+ \to \overline{D}{}_2^*(2460)^0\ell^+\nu_\ell) \cdot B(\overline{D}{}_2^*(2460)^0 \to D^{(*)-}\pi^+) = (2.29 \pm 0.23 \pm 0.21) \times 10^{-3}$ and the authors have provided us the individual measurement. NODE=S041B33;LINKAGE=AU

[2] Uses a fully reconstructed B meson as a tag on the recoil side. NODE=S041B33;LINKAGE=BE

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B33;LINKAGE=EP



$\Gamma\left(\overline{D}_2^*(2460)^0 \ell^+ \nu_\ell,\ \overline{D}_2^{*0} \to D^{*-}\pi^+\right)/\Gamma_{total}$ (units 10^{-3})

$\left[\Gamma\left(\overline{D}_1(2420)^0 \tau^+ \nu_\tau\right) + \Gamma\left(\overline{D}_2^*(2460)^0 \tau^+ \nu_\tau\right)\right] / \left[\Gamma\left(\overline{D}_1(2420)^0 D_s^{(*)+}\right) + \Gamma\left(\overline{D}_2^*(2460)^0 D_s^{(*)+}\right)\right]$ $(\Gamma_{22}+\Gamma_{23})/(\Gamma_{207}+\Gamma_{208})$

NODE=S041D61
NODE=S041D61

VALUE	DOCUMENT ID		TECN	COMMENT
0.19±0.04±0.02	[1] AAIJ	25E	LHCB	pp at 7, 8, 13 TeV

[1] Uses $\tau^+ \to \pi^+\pi^-\pi^+(\pi^0)\overline{\nu}_\tau$ with π^0 not reconstructed.

NODE=S041D61;LINKAGE=A

$\Gamma\left(\overline{D}^0 \pi^+\pi^- \ell^+ \nu_\ell\right)/\Gamma_{total}$ Γ_{24}/Γ

NODE=S041A78
NODE=S041A78

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
1.73±0.14±0.13	MEIER	23	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma\left(\overline{D}^0 \pi^+\pi^- \ell^+ \nu_\ell\right)/\Gamma\left(\overline{D}^0 \ell^+ \nu_\ell\right)$ Γ_{24}/Γ_7

NODE=S041C91
NODE=S041C91

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
7.1±1.3±0.8	[1] LEES	16	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Measurement used electrons and muons as leptons.

NODE=S041C91;LINKAGE=A

$\Gamma\left(\overline{D}_1(2420)^0 \ell^+ \nu_\ell,\ \overline{D}_1^0 \to \overline{D}^0 \pi^+\pi^-\right)/\Gamma_{total}$ Γ_{25}/Γ

NODE=S041A80
NODE=S041A80

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
1.05±0.11±0.08	MEIER	23	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma\left(\overline{D}^{*0} \pi^+\pi^- \ell^+ \nu_\ell\right)/\Gamma\left(\overline{D}^*(2007)^0 \ell^+ \nu_\ell\right)$ Γ_{26}/Γ_{10}

NODE=S041C92
NODE=S041C92

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
1.4±0.7±0.4	[1] LEES	16	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Measurement used electrons and muons as leptons.

NODE=S041C92;LINKAGE=A

$\Gamma\left(\overline{D}^{*0} \pi^+\pi^- \ell^+ \nu_\ell\right)/\Gamma_{total}$ Γ_{26}/Γ

NODE=S041A79
NODE=S041A79

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
7.0±1.5±0.8	MEIER	23	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma\left(D_s^{(*)-} K^+ \ell^+ \nu_\ell\right)/\Gamma_{total}$ Γ_{27}/Γ

NODE=S041C78
NODE=S041C78

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
6.1 ±1.0 OUR AVERAGE				
5.9 ±1.2 ±1.5	[1] STYPULA	12	BELL	$e^+e^- \to \Upsilon(4S)$
$6.13^{+1.04}_{-1.03}\pm0.67$	[1] DEL-AMO-SA...	11L	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C78;LINKAGE=EP

$\Gamma(D_s^- K^+ \ell^+ \nu_\ell)/\Gamma_{\rm total}$ Γ_{28}/Γ

NODE=S041T92

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$3.0 \pm 0.9^{+1.1}_{-0.8}$	[1] STYPULA 12	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T92;LINKAGE=EP

$\Gamma(D_s^{*-} K^+ \ell^+ \nu_\ell)/\Gamma_{\rm total}$ Γ_{29}/Γ

NODE=S041T70

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$2.9 \pm 1.6^{+1.1}_{-1.0}$	[1,2] STYPULA 12	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.
[2] STYPULA 12 provides also an upper limit of 0.56×10^{-3} at 90% CL for the same data. Also measures branching fraction of the combined modes of $D_s^- K^+ \ell^+ \nu_\ell$ and $D_s^{*-} K^+ \ell^+ \nu_\ell$ as $B(B^+ \rightarrow D_s^{(*)-} K^+ \ell^+ \nu_\ell) = (5.9 \pm 1.2 \pm 1.5) \times 10^{-4}$.

NODE=S041T70;LINKAGE=EP
NODE=S041T70;LINKAGE=ST

$\Gamma(\pi^0 \ell^+ \nu_\ell)/\Gamma_{\rm total}$ Γ_{30}/Γ

NODE=S041Q53

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
0.780±0.027 OUR EVALUATION	(Produced by HFLAV)		
0.748±0.029 OUR AVERAGE			
0.80 ±0.08 ±0.04	[1] SIBIDANOV 13	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
0.77 ±0.04 ±0.03	[2] LEES 12AA	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
0.705±0.025±0.035	[3] DEL-AMO-SA...11C	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
0.82 ±0.09 ±0.05	[3] AUBERT 08AV	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
0.77 ±0.14 ±0.08	[4] HOKUUE 07	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.74 ±0.05 ±0.10	[5] AUBERT,B 05O	BABR	Repl. by DEL-AMO-SANCHEZ 11C

→ UNCHECKED ←

[1] The signal events are tagged by a second B meson reconstructed in the fully hadronic decays.
[2] Uses loose neutrino reconstruction technique. Assumes $B(Y(4S) \rightarrow B^+ B^-) = (51.6 \pm 0.6)\%$ and $B(Y(4S) \rightarrow B^0 \overline{B}^0) = (48.4 \pm 0.6)\%$.
[3] Using the isospin symmetry relation, B^+ and B^0 branching fractions are combined.
[4] The signal events are tagged by a second B meson reconstructed in the semileptonic mode $B \rightarrow D^{(*)} \ell \nu_\ell$.
[5] B^+ and B^0 decays combined assuming isospin symmetry. Systematic errors include both experimental and form-factor uncertainties.

NODE=S041Q53;LINKAGE=A
NODE=S041Q53;LINKAGE=LE
NODE=S041Q53;LINKAGE=AB
NODE=S041Q53;LINKAGE=HO
NODE=S041Q53;LINKAGE=IS

$\Gamma(\pi^0 e^+ \nu_e)/\Gamma_{\rm total}$ Γ_{31}/Γ

NODE=S041R70

VALUE (units 10^{-4})	CL%	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.9±0.2±0.2		[1] ALEXANDER 96T	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
<22	90	ANTREASYAN 90B	CBAL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Derived based in the reported B^0 result by assuming isospin symmetry: $\Gamma(B^0 \rightarrow \pi^- \ell^+ \nu) = 2\Gamma(B^+ \rightarrow \pi^0 \ell^+ \nu)$.

NODE=S041R70;LINKAGE=2N

$\Gamma(\eta \ell^+ \nu_\ell)/\Gamma_{\rm total}$ Γ_{32}/Γ

NODE=S041T10

VALUE (units 10^{-4})	CL%	DOCUMENT ID	TECN	COMMENT
0.35 ±0.04 OUR AVERAGE				
0.283±0.055±0.034		[1] GEBAUER 22	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
0.42 ±0.11 ±0.03		[2] BELENO 17	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
0.38 ±0.05 ±0.05		[3] LEES 12AA	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
0.31 ±0.06 ±0.08		[3] AUBERT 09Q	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
0.64 ±0.20 ±0.03		[4] AUBERT 08AV	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.36 ±0.05 ±0.04		[3] DEL-AMO-SA...11F	BABR	Repl. by LEES 12AA
<1.01	90	[5] ADAM 07	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
0.84 ±0.31 ±0.18		[6] ATHAR 03	CLE2	Repl. by ADAM 07

[1] Assumes $B(\Upsilon(4S) \rightarrow B^+ B^-) = (51.3 \pm 0.6)\%$.
[2] Uses missing-mass technique by fully reconstructing the hadronic decay chain of the accompanying B.
[3] Uses loose neutrino reconstruction technique. Assumes $B(\Upsilon(4S) \rightarrow B^+ B^-) = (51.6 \pm 0.6)\%$ and $B(\Upsilon(4S) \rightarrow B^0 \overline{B}^0) = (48.4 \pm 0.6)\%$.
[4] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.
[5] The B^0 and B^+ results are combined assuming the isospin, B lifetimes, and relative charged/neutral B production at the $\Upsilon(4S)$.
[6] ATHAR 03 reports systematic errors 0.16 ± 0.09, which are experimental systematic and systematic due to model dependence. We combine these in quadrature.

NODE=S041T10;LINKAGE=B
NODE=S041T10;LINKAGE=A
NODE=S041T10;LINKAGE=AU
NODE=S041T10;LINKAGE=EP
NODE=S041T10;LINKAGE=AD
NODE=S041T10;LINKAGE=AT

$\Gamma(\eta' \ell^+ \nu_\ell)/\Gamma_{total}$ Γ_{33}/Γ

NODE=S041Q88
NODE=S041Q88

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
0.24 ±0.07 OUR AVERAGE					
0.279±0.129±0.030		[1] GEBAUER	22	BELL	$e^+ e^- \to \Upsilon(4S)$
0.24 ±0.08 ±0.03		[2] LEES	12AA	BABR	$e^+ e^- \to \Upsilon(4S)$
0.04 ±0.22 $^{+0.05}_{-0.02}$		[3] AUBERT	08AV	BABR	$e^+ e^- \to \Upsilon(4S)$
2.66 ±0.80 ±0.56		[4] ADAM	07	CLE2	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.72	90	[5] BELENO	17	BELL	$e^+ e^- \to \Upsilon(4S)$
0.24 ±0.08 ±0.03		[2] DEL-AMO-SA...	11F	BABR	Repl. by LEES 12AA

[1] Assumes B($\Upsilon(4S) \to B^+ B^-$) = (51.3 ± 0.6)%. NODE=S041Q88;LINKAGE=B

[2] Uses loose neutrino reconstruction technique. Assumes B($Y(4S) \to B^+ B^-$) = (51.6 ± 0.6)% and B($Y(4S) \to B^0 \overline{B}^0$) = (48.4 ± 0.6)%. NODE=S041Q88;LINKAGE=DE

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q88;LINKAGE=EP

[4] The B^0 and B^+ results are combined assuming the isospin, B lifetimes, and relative charged/neutral B production at the $\Upsilon(4S)$. Corresponds to 90% CL interval (1.20–4.46) × 10^{-4}. NODE=S041Q88;LINKAGE=AD

[5] Uses missing-mass technique by fully reconstructing the hadronic decay chain of the accompanying B. NODE=S041Q88;LINKAGE=A

$\Gamma(\omega \ell^+ \nu_\ell)/\Gamma_{total}$ Γ_{34}/Γ

NODE=S041S47

$\ell = e$ or μ, not sum over e and μ modes.

NODE=S041S47
NODE=S041S47

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
1.19±0.09 OUR AVERAGE					
1.21±0.14±0.08		[1,2] LEES	13A	BABR	$e^+ e^- \to \Upsilon(4S)$
1.35±0.21±0.11		[3] LEES	13T	BABR	$e^+ e^- \to \Upsilon(4S)$
1.07±0.16±0.07		[4] SIBIDANOV	13	BELL	$e^+ e^- \to \Upsilon(4S)$
1.19±0.16±0.09		[2,5] LEES	12AA	BABR	$e^+ e^- \to \Upsilon(4S)$
1.3 ±0.4 ±0.4		[6] SCHWANDA	04	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1.14±0.16±0.08		[2] AUBERT	09Q	BABR	Repl. by LEES 13A
<2.1	90	[7] BEAN	93B	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] LEES 13A reports (1.21 ± 0.14 ± 0.08) × 10^{-4} from a measurement of [$\Gamma(B^+ \to \omega \ell^+ \nu_\ell)/\Gamma_{total}$] × [B($\omega(782) \to \pi^+ \pi^- \pi^0$)] assuming B($\omega(782) \to \pi^+ \pi^- \pi^0$) = (89.2 ± 0.7) × 10^{-2}. NODE=S041S47;LINKAGE=LS

[2] Uses B($\Upsilon(4S) \to B^+ B^-$) = (51.6 ± 0.6)% and B($\Upsilon(4S) \to B^0 \overline{B}^0$) = (48.4 ± 0.6)%. NODE=S041S47;LINKAGE=NE

[3] Uses semileptonic tagging. Assumes B($\omega \to \pi^+ \pi^- \pi^0$) = (89.2 ± 0.7)% and that the production ratio of $B^+ B^-$ to $B^0 \overline{B}^0$ from $\Upsilon(4S)$ is 1.056 ± 0.028. The partial branching fractions in three bins of q^2 are also reported. NODE=S041S47;LINKAGE=JP

[4] The signal events are tagged by a second B meson reconstructed in the fully hadronic decays. NODE=S041S47;LINKAGE=B

[5] Uses loose neutrino reconstruction technique. NODE=S041S47;LINKAGE=LE

[6] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S47;LINKAGE=EP

[7] BEAN 93B limit set using ISGW Model. Using isospin and the quark model to combine $\Gamma(\rho^0 \ell^+ \nu_\ell)$ and $\Gamma(\rho^- \ell^+ \nu_\ell)$ with this result, they obtain a limit <(1.6–2.7) × 10^{-4} at 90% CL for $B^+ \to \omega \ell^+ \nu_\ell$. The range corresponds to the ISGW, WSB, and KS models. An upper limit on $|V_{ub}/V_{cb}|$ < 0.8–0.13 at 90% CL is derived as well. NODE=S041S47;LINKAGE=A

$\Gamma(\omega \mu^+ \nu_\mu)/\Gamma_{total}$ Γ_{35}/Γ

NODE=S041R79
NODE=S041R79

VALUE	DOCUMENT ID		TECN
• • • We do not use the following data for averages, fits, limits, etc. • • •			
seen	[1] ALBRECHT	91C	ARG

[1] In ALBRECHT 91C, one event is fully reconstructed providing evidence for the $b \to u$ transition. NODE=S041R79;LINKAGE=A

$\Gamma(\rho^0 \ell^+ \nu_\ell)/\Gamma_{total}$ Γ_{36}/Γ

NODE=S041S48

$\ell = e$ or μ, not sum over e and μ modes.

NODE=S041S48
NODE=S041S48

→ UNCHECKED ←
NEW

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
1.58 ±0.11 OUR EVALUATION (Produced by HFLAV)					
1.46 ±0.18 OUR AVERAGE Error includes scale factor of 2.1. See the ideogram below. [(1.42 ± 0.23) × 10^{-4} OUR 2025 AVERAGE Scale factor = 2.4]					
1.625±0.079±0.180		[1] ADACHI	25I	BELL	$e^+ e^- \to \Upsilon(4S)$
1.83 ±0.10 ±0.10		[2] SIBIDANOV	13	BELL	$e^+ e^- \to \Upsilon(4S)$
0.94 ±0.08 ±0.14		[3] DEL-AMO-SA...	11C	BABR	$e^+ e^- \to \Upsilon(4S)$
1.33 ±0.23 ±0.18		[4] HOKUUE	07	BELL	$e^+ e^- \to \Upsilon(4S)$
1.34 ±0.15 $^{+0.28}_{-0.32}$		[5] BEHRENS	00	CLE2	$e^+ e^- \to \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

$1.16 \pm 0.11 \pm 0.30$		[3] AUBERT,B	05O	BABR	Repl. by DEL-AMO-SANCHEZ 11C
$1.40 \pm 0.21 {}^{+0.32}_{-0.33}$		[5] BEHRENS	00	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
$1.2 \pm 0.2 {}^{+0.3}_{-0.4}$		[5] ALEXANDER	96T	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
<2.1	90	[6] BEAN	93B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

OCCUR=2

[1] Uses $B(\Upsilon(4S) \rightarrow B^+ B^-)/B(\Upsilon(4S) \rightarrow B^0 \overline{B}^0) = 1.065 \pm 0.052$.

[2] The signal events are tagged by a second B meson reconstructed in the fully hadronic decays.

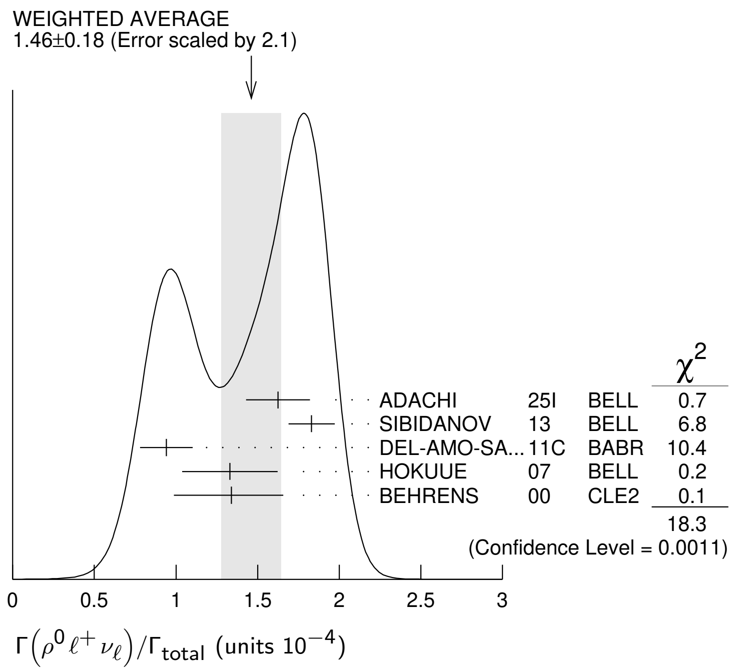
[3] B^+ and B^0 decays combined assuming isospin symmetry. Systematic errors include both experimental and form-factor uncertainties.

[4] The signal events are tagged by a second B meson reconstructed in the semileptonic mode $B \rightarrow D^{(*)} \ell \nu_\ell$.

[5] Derived based in the reported B^0 result by assuming isospin symmetry: $\Gamma(B^0 \rightarrow \rho^- \ell^+ \nu) = 2\Gamma(B^+ \rightarrow \rho^0 \ell^+ \nu) \approx 2\Gamma(B^+ \rightarrow \omega \ell^+ \nu)$.

[6] BEAN 93B limit set using ISGW Model. Using isospin and the quark model to combine $\Gamma(\omega^0 \ell^+ \nu_\ell)$ and $\Gamma(\rho^- \ell^+ \nu_\ell)$ with this result, they obtain a limit $<(1.6\text{–}2.7) \times 10^{-4}$ at 90% CL for $B^+ \rightarrow \rho^0 \ell^+ \nu_\ell$. The range corresponds to the ISGW, WSB, and KS models. An upper limit on $|V_{ub}/V_{cb}| < 0.8\text{–}0.13$ at 90% CL is derived as well.

NODE=S041S48;LINKAGE=C
NODE=S041S48;LINKAGE=B
NODE=S041S48;LINKAGE=IS
NODE=S041S48;LINKAGE=HO
NODE=S041S48;LINKAGE=2N
NODE=S041S48;LINKAGE=A



$\Gamma(\pi^+ \pi^- \ell^+ \nu_\ell)/\Gamma_{total}$ Γ_{37}/Γ

NODE=S041A38

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
$\mathbf{22.7^{+1.9}_{-1.6} \pm 3.5}$	BELENO	21	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

$\Gamma(p \overline{p} \ell^+ \nu_\ell)/\Gamma_{total}$ Γ_{38}/Γ

NODE=S041C82

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$\mathbf{5.8^{+2.4}_{-2.1} \pm 0.9}$	[1] TIEN	14	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C82;LINKAGE=EP

$\Gamma(p \overline{p} \mu^+ \nu_\mu)/\Gamma_{total}$ Γ_{39}/Γ

NODE=S041C83

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<8.5	90	[1] TIEN	14	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C83;LINKAGE=EP

$\Gamma(p\overline{p}\mu^+\nu_\mu)/\Gamma(J/\psi(1S)K^+)$ — Γ_{39}/Γ_{316}

NODE=S041P88

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
5.22±0.31±0.03	[1] AAIJ	20K	LHCB	pp at 7, 8 and 13 TeV

[1] AAIJ 20K reports $[\Gamma(B^+ \to p\overline{p}\mu^+\nu_\mu)/\Gamma(B^+ \to J/\psi(1S)K^+)]$ / $[B(J/\psi(1S) \to \mu^+\mu^-)] = (8.75 \pm 0.39 \pm 0.35) \times 10^{-2}$ which we multiply by our best value $B(J/\psi(1S) \to \mu^+\mu^-) = (5.961 \pm 0.033) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041P88;LINKAGE=A

$\Gamma(p\overline{p}e^+\nu_e)/\Gamma_{total}$ — Γ_{40}/Γ

NODE=S041C2

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{8.2^{+3.7}_{-3.2}\pm0.6}$		[1] TIEN	14	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<5200	90	[2] ADAM	03B	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C2;LINKAGE=EP

[2] Based on phase-space model; if $V-A$ model is used, the 90% CL upper limit becomes $< 1.2 \times 10^{-3}$. NODE=S041C2;LINKAGE=VA

$\Gamma(e^+\nu_e)/\Gamma_{total}$ — Γ_{41}/Γ

NODE=S041S55

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
< 0.98	90	[1] SATOYAMA	07	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
< 3.5	90	[2] YOOK	15	BELL	$e^+e^- \to \Upsilon(4S)$
< 8	90	[1] AUBERT	10E	BABR	$e^+e^- \to \Upsilon(4S)$
< 1.9	90	[1] AUBERT	09V	BABR	$e^+e^- \to \Upsilon(4S)$
< 5.2	90	[1] AUBERT	08AD	BABR	$e^+e^- \to \Upsilon(4S)$
<15	90	ARTUSO	95	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S55;LINKAGE=EP

[2] Assumes $B(\Upsilon(4S) \to B^+B^-) = 0.513 \pm 0.006$. NODE=S041S55;LINKAGE=A

$\Gamma(\mu^+\nu_\mu)/\Gamma_{total}$ — Γ_{42}/Γ

NODE=S041S56

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
< 0.86	90	[1] PRIM	20	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.29 to 1.07	90	[2] SIBIDANOV	18	BELL	$e^+e^- \to \Upsilon(4S)$
< 2.7	90	[3] YOOK	15	BELL	$e^+e^- \to \Upsilon(4S)$
<11	90	[4] AUBERT	10E	BABR	$e^+e^- \to \Upsilon(4S)$
< 1.0	90	[4] AUBERT	09V	BABR	$e^+e^- \to \Upsilon(4S)$
< 5.6	90	[4] AUBERT	08AD	BABR	$e^+e^- \to \Upsilon(4S)$
< 1.7	90	[4,5] SATOYAMA	07	BELL	$e^+e^- \to \Upsilon(4S)$
< 6.6	90	AUBERT	04O	BABR	Repl. by AUBERT 09V
<21	90	ARTUSO	95	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] This is a 90% C.L. upper limit in the frequentist approach. The corresponding upper limit in the Bayesian approach is $< 8.9 \times 10^{-7}$. A 2.8 standard deviation signal above the background is found, with a measured branching fraction $(5.3 \pm 2.0 \pm 0.9) \times 10^{-7}$. NODE=S041S56;LINKAGE=D

[2] This is a 90% confidence interval in the frequentist approach. A 2.4 standard deviation signal above the background is found, with a measured branching fraction $(6.46 \pm 2.22 \pm 1.60) \times 10^{-7}$. NODE=S041S56;LINKAGE=B

[3] Assumes $B(\Upsilon(4S) \to B^+B^-) = 0.513 \pm 0.006$. NODE=S041S56;LINKAGE=A

[4] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S56;LINKAGE=EP

[5] Superseded by SIBIDANOV 18. NODE=S041S56;LINKAGE=C

$\Gamma(\tau^+\nu_\tau)/\Gamma_{total}$ — Γ_{43}/Γ

NODE=S041S57

See the note on "Decay Constants of Charged Pseudoscalar Mesons" in the D_s^+ Listings. NODE=S041S57

NODE=S041S57

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
1.09±0.24 OUR AVERAGE		Error includes scale factor of 1.2.			
1.25±0.28±0.27		[1,2] KRONENBIT...	15	BELL	$e^+e^- \to \Upsilon(4S)$
$0.72^{+0.27}_{-0.25}\pm0.11$		[3] HARA	13	BELL	$e^+e^- \to \Upsilon(4S)$
$1.83^{+0.53}_{-0.49}\pm0.24$		[2,4] LEES	13K	BABR	$e^+e^- \to \Upsilon(4S)$
1.7 ±0.8 ±0.2		[2,5] AUBERT	10E	BABR	$e^+e^- \to \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

$1.54^{+0.38}_{-0.37}{}^{+0.29}_{-0.31}$		[2,6] HARA	10	BELL	Repl. by KRONENBITTER 15
$1.8\ ^{+0.9}_{-0.8}\ \pm0.45$		[2,7] AUBERT	08D	BABR	Repl. by LEES 13K
$0.9\ \pm0.6\ \pm0.1$		[2,5] AUBERT	07AL	BABR	Repl. by AUBERT 10E
$<\ 2.6$	90	[2] AUBERT	06K	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
$1.79^{+0.56}_{-0.49}{}^{+0.46}_{-0.51}$		[2,7] IKADO	06	BELL	Repl. by HARA 13
$<\ 4.2$	90	[2] AUBERT,B	05B	BABR	Repl. by AUBERT 06K
$<\ 8.3$	90	[8] BARATE	01E	ALEP	$e^+e^- \rightarrow Z$
$<\ 8.4$	90	[2] BROWDER	01	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$
$<\ 5.7$	90	[9] ACCIARRI	97F	L3	$e^+e^- \rightarrow Z$
<104	90	[10] ALBRECHT	95D	ARG	$e^+e^- \rightarrow \Upsilon(4S)$
$<\ 22$	90	ARTUSO	95	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$
$<\ 18$	90	[11] BUSKULIC	95	ALEP	$e^+e^- \rightarrow Z$

[1] Requires one reconstructed semileptonic B decay $B^- \rightarrow D^{(*)0}\ell^-\overline{\nu}_\ell$ in the recoil. NODE=S041S57;LINKAGE=E
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S57;LINKAGE=EP
[3] The authors combine their result with that from HARA 10 obtaining B($B^- \rightarrow \tau^-\overline{\nu}_\tau$)=$(0.96 \pm 0.26) \times 10^{-4}$ and deriving $f_B\ |V_{ub}|$=$(7.4 \pm 0.8 \pm 0.5) \times 10^{-4}$ GeV. NODE=S041S57;LINKAGE=D
[4] Requires a fully reconstructed hadronic B-decay in the recoil. Reports that this result combined with AUBERT 10E value gives B($B^- \rightarrow \tau^-\overline{\nu}_\tau$) = $(1.79 \pm 0.48) \times 10^{-4}$. NODE=S041S57;LINKAGE=LE
[5] Requires one reconstructed semileptonic B decay $B^- \rightarrow D^0\ell^-\overline{\nu}_\ell X$ in the recoil. NODE=S041S57;LINKAGE=UB
[6] Requires one reconstructed semileptonic B decay $B^- \rightarrow D^{(*)0}\ell^-\overline{\nu}_\ell X$ in the recoil. NODE=S041S57;LINKAGE=HA
[7] The analysis is based on a sample of events with one fully reconstructed tag B in a hadronic decay mode $B^- \rightarrow D^{(*)0}X^-$. NODE=S041S57;LINKAGE=BT
[8] The energy-flow and b-tagging algorithms were used. NODE=S041S57;LINKAGE=QK
[9] ACCIARRI 97F uses missing-energy technique and $f(b \rightarrow B^-) = (38.2 \pm 2.5)\%$. NODE=S041S57;LINKAGE=C
[10] ALBRECHT 95D uses full reconstruction of one B decay as tag. NODE=S041S57;LINKAGE=A
[11] BUSKULIC 95 uses same missing-energy technique as in $\overline{b} \rightarrow \tau^+\nu_\tau$X, but analysis is restricted to endpoint region of missing-energy distribution. NODE=S041S57;LINKAGE=B

$\Gamma(\ell^+\nu_\ell\gamma)/\Gamma_{total}$ — Γ_{44}/Γ

NODE=S041P01
NODE=S041P01

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<\ 3.0 \times 10^{-6}$	90	[1,2] GELB	18	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<\ 3.5 \times 10^{-6}$	90	[2,3] HELLER	15	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
$<15.6 \times 10^{-6}$	90	[2] AUBERT	09AT	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Supersedes HELLER 15. NODE=S041P01;LINKAGE=A
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P01;LINKAGE=EP
[3] Superseded by GELB 18. NODE=S041P01;LINKAGE=B

$\Gamma(e^+\nu_e\gamma)/\Gamma_{total}$ — Γ_{45}/Γ

NODE=S041B9
NODE=S041B9

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<\ 4.3 \times 10^{-6}$	90	[1,2] GELB	18	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<\ 6.1 \times 10^{-6}$	90	[2,3] HELLER	15	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
$<\ 17\ \times 10^{-6}$	90	[2] AUBERT	09AT	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
$<200\ \times 10^{-6}$	90	[4] BROWDER	97	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Supersedes HELLER 15. NODE=S041B9;LINKAGE=B
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B9;LINKAGE=EP
[3] Superseded by GELB 18. NODE=S041B9;LINKAGE=C
[4] BROWDER 97 uses the hermiticity of the CLEO II detector to reconstruct the neutrino energy and momentum. NODE=S041B9;LINKAGE=A

$\Gamma(\mu^+\nu_\mu\gamma)/\Gamma_{total}$ — Γ_{46}/Γ

NODE=S041B10
NODE=S041B10

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<\ 3.4 \times 10^{-6}$	90	[1,2] GELB	18	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<\ 3.4 \times 10^{-6}$	90	[2,3] HELLER	15	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
$<24\ \times 10^{-6}$	90	[2,4] AUBERT	09AT	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
$<52\ \times 10^{-6}$	90	[5] BROWDER	97	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Supersedes HELLER 15. NODE=S041B10;LINKAGE=B
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B10;LINKAGE=EP
[3] Superseded by GELB 18. NODE=S041B10;LINKAGE=D
[4] Note that the value given by AUBERT 09AT is 24×10^{-6} in the paper abstract, and 26×10^{-6} in the paper itself (Table I). NODE=S041B10;LINKAGE=C
[5] BROWDER 97 uses the hermiticity of the CLEO II detector to reconstruct the neutrino energy and momentum. NODE=S041B10;LINKAGE=A

$\Gamma(\mu^+\mu^-\mu^+\nu_\mu)/\Gamma_{total}$ — Γ_{47}/Γ

NODE=S041P68

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.6 × 10^{-8}	95	[1] AAIJ	19P	LHCB	pp at 7, 8, 13 TeV

[1] AAIJ 19P limit established for the kinematic region where the lower of the two M($\mu^+\mu^-$) is less than 980 MeV/c^2.

NODE=S041P68;LINKAGE=A

$\Gamma(D^0 X)/\Gamma_{total}$ — Γ_{48}/Γ

NODE=S041Q24

VALUE	DOCUMENT ID		TECN	COMMENT
0.086±0.006±0.004	[1] AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.098±0.009±0.006	[1] AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

[1] Events are selected by completely reconstructing one B and searching for a reconstructed charmed particle in the rest of the event. The last error includes systematic and charm branching ratio uncertainties.

NODE=S041Q24;LINKAGE=AU

$\Gamma(\overline{D}^0 X)/\Gamma_{total}$ — Γ_{49}/Γ

NODE=S041Q25

VALUE	DOCUMENT ID		TECN	COMMENT
0.786±0.016$^{+0.034}_{-0.033}$	[1] AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.793±0.025$^{+0.045}_{-0.044}$	[1] AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

[1] Events are selected by completely reconstructing one B and searching for a reconstructed charmed particle in the rest of the event. The last error includes systematic and charm branching ratio uncertainties.

NODE=S041Q25;LINKAGE=AU

$\Gamma(D^0 X)/[\Gamma(D^0 X)+\Gamma(\overline{D}^0 X)]$ — $\Gamma_{48}/(\Gamma_{48}+\Gamma_{49})$

NODE=S041Q26

VALUE	DOCUMENT ID		TECN	COMMENT
0.098±0.007±0.001	AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.110±0.010±0.003	AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

$\Gamma(D^+ X)/\Gamma_{total}$ — Γ_{50}/Γ

NODE=S041Q27

VALUE	DOCUMENT ID		TECN	COMMENT
0.025±0.005±0.002	[1] AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.038±0.009±0.005	[1] AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

[1] Events are selected by completely reconstructing one B and searching for a reconstructed charmed particle in the rest of the event. The last error includes systematic and charm branching ratio uncertainties.

NODE=S041Q27;LINKAGE=AU

$\Gamma(D^- X)/\Gamma_{total}$ — Γ_{51}/Γ

NODE=S041Q28

VALUE	DOCUMENT ID		TECN	COMMENT
0.099±0.008±0.009	[1] AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.098±0.012±0.014	[1] AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

[1] Events are selected by completely reconstructing one B and searching for a reconstructed charmed particle in the rest of the event. The last error includes systematic and charm branching ratio uncertainties.

NODE=S041Q28;LINKAGE=AU

$\Gamma(D^+ X)/[\Gamma(D^+ X)+\Gamma(D^- X)]$ — $\Gamma_{50}/(\Gamma_{50}+\Gamma_{51})$

NODE=S041Q29

VALUE	DOCUMENT ID		TECN	COMMENT
0.204±0.035±0.001	AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.278±0.052±0.009	AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

$\Gamma(D_s^+ X)/\Gamma_{total}$ — Γ_{52}/Γ

NODE=S041Q30

VALUE	DOCUMENT ID		TECN	COMMENT
0.079±0.006$^{+0.013}_{-0.011}$	[1] AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.143±0.016$^{+0.051}_{-0.034}$	[1] AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

[1] Events are selected by completely reconstructing one B and searching for a reconstructed charmed particle in the rest of the event. The last error includes systematic and charm branching ratio uncertainties.

NODE=S041Q30;LINKAGE=AU

$\Gamma(D_s^- X)/\Gamma_{\text{total}}$ — Γ_{53}/Γ

NODE=S041Q31
NODE=S041Q31

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.011^{+0.004}_{-0.003}{}^{+0.002}_{-0.001}}$		[1] AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.022	90	[1] AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

[1] Events are selected by completely reconstructing one B and searching for a reconstructed charmed particle in the rest of the event. The last error includes systematic and charm branching ratio uncertainties.

NODE=S041Q31;LINKAGE=AU

$\Gamma(D_s^+ X)/[\Gamma(D_s^+ X)+\Gamma(D_s^- X)]$ — $\Gamma_{52}/(\Gamma_{52}+\Gamma_{53})$

NODE=S041Q32
NODE=S041Q32

VALUE	DOCUMENT ID		TECN	COMMENT
0.884±0.038±0.002	AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.966±0.039±0.012	AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

$\Gamma(D_s^- X)/[\Gamma(D_s^+ X)+\Gamma(D_s^- X)]$ — $\Gamma_{53}/(\Gamma_{52}+\Gamma_{53})$

NODE=S041Q33
NODE=S041Q33

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.126	90	AUBERT,BE	04B	BABR	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\Lambda_c^+ X)/\Gamma_{\text{total}}$ — Γ_{54}/Γ

NODE=S041Q34
NODE=S041Q34

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.021\pm0.005^{+0.008}_{-0.004}}$	[1] AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.029\pm0.008^{+0.011}_{-0.007}$	[1] AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

[1] Events are selected by completely reconstructing one B and searching for a reconstructed charmed particle in the rest of the event. The last error includes systematic and charm branching ratio uncertainties.

NODE=S041Q34;LINKAGE=AU

$\Gamma(\overline{\Lambda}_c^- X)/\Gamma_{\text{total}}$ — Γ_{55}/Γ

NODE=S041Q35
NODE=S041Q35

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.028\pm0.005^{+0.010}_{-0.007}}$	[1] AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.035\pm0.008^{+0.013}_{-0.009}$	[1] AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

[1] Events are selected by completely reconstructing one B and searching for a reconstructed charmed particle in the rest of the event. The last error includes systematic and charm branching ratio uncertainties.

NODE=S041Q35;LINKAGE=AU

$\Gamma(\Lambda_c^+ X)/[\Gamma(\Lambda_c^+ X)+\Gamma(\overline{\Lambda}_c^- X)]$ — $\Gamma_{54}/(\Gamma_{54}+\Gamma_{55})$

NODE=S041Q36
NODE=S041Q36

VALUE	DOCUMENT ID		TECN	COMMENT
0.427±0.071±0.001	AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.452±0.090±0.003	AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

$\Gamma(\overline{c} X)/\Gamma_{\text{total}}$ — Γ_{56}/Γ

NODE=S041Q37
NODE=S041Q37

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.968\pm0.019^{+0.041}_{-0.039}}$	[1] AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.983\pm0.030^{+0.054}_{-0.051}$	[1] AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

[1] Events are selected by completely reconstructing one B and searching for a reconstructed charmed particle in the rest of the event. The last error includes systematic and charm branching ratio uncertainties.

NODE=S041Q37;LINKAGE=AU

$\Gamma(c X)/\Gamma_{\text{total}}$ — Γ_{57}/Γ

NODE=S041Q38
NODE=S041Q38

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.234\pm0.012^{+0.018}_{-0.014}}$	[1] AUBERT	07N	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.330\pm0.022^{+0.055}_{-0.037}$	[1] AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

[1] Events are selected by completely reconstructing one B and searching for a reconstructed charmed particle in the rest of the event. The last error includes systematic and charm branching ratio uncertainties.

NODE=S041Q38;LINKAGE=AU

$\Gamma(c/\overline{c}X)/\Gamma_{total}$ — Γ_{58}/Γ

NODE=S041Q39

VALUE	DOCUMENT ID		TECN	COMMENT
$1.202\pm0.023^{+0.053}_{-0.049}$	[1] AUBERT	07N	BABR	$e^+e^-\to\Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$1.313\pm0.037^{+0.088}_{-0.075}$	[1] AUBERT,BE	04B	BABR	Repl. by AUBERT 07N

[1] Events are selected by completely reconstructing one B and searching for a reconstructed charmed particle in the rest of the event. The last error includes systematic and charm branching ratio uncertainties. NODE=S041Q39;LINKAGE=AU

$\Gamma(\overline{D}^0\pi^+)/\Gamma_{total}$ — Γ_{59}/Γ

NODE=S041R1

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
4.61±0.10 OUR FIT					
4.63±0.10 OUR AVERAGE					
$4.53\pm0.02\pm0.15$		BLOOMFIELD	22	BELL	$e^+e^-\to\Upsilon(4S)$
$4.34\pm0.10\pm0.23$		[1] KATO	18	BELL	$e^+e^-\to\Upsilon(4S)$
$4.90\pm0.07\pm0.22$		[2] AUBERT	07H	BABR	$e^+e^-\to\Upsilon(4S)$
$4.9\pm0.6\pm0.2$		[3] ABULENCIA	06J	CDF	$p\overline{p}$ at 1.96 TeV
$4.49\pm0.21\pm0.23$		[4] AUBERT,BE	06J	BABR	$e^+e^-\to\Upsilon(4S)$
$4.97\pm0.12\pm0.29$		[2,5] AHMED	02B	CLE2	$e^+e^-\to\Upsilon(4S)$
$5.0\pm0.7\pm0.6$	54	[6] BORTOLETTO	92	CLEO	$e^+e^-\to\Upsilon(4S)$
$5.4\ ^{+1.8}_{-1.5}\ ^{+1.2}_{-0.9}$	14	[7] BEBEK	87	CLEO	$e^+e^-\to\Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$4.67\pm0.26\pm0.04$		[8] AUBERT,B	04P	BABR	Repl. by AUBERT 07H
$5.5\pm0.4\pm0.5$	304	[9] ALAM	94	CLE2	Repl. by AHMED 02B
$2.0\pm0.8\pm0.6$	12	[6] ALBRECHT	90J	ARG	$e^+e^-\to\Upsilon(4S)$
$1.9\pm1.0\pm0.6$	7	[10] ALBRECHT	88K	ARG	$e^+e^-\to\Upsilon(4S)$

[1] Measures absolute branching fractions using a missing-mass technique. NODE=S041R1;LINKAGE=F

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R1;LINKAGE=EP

[3] ABULENCIA 06J reports $[\Gamma(B^+\to\overline{D}^0\pi^+)/\Gamma_{total}]$ / $[B(B^0\to D^-\pi^+)] = 1.97\pm0.10\pm0.21$ which we multiply by our best value $B(B^0\to D^-\pi^+) = (2.51\pm0.08)\times10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R1;LINKAGE=AL

[4] Uses a missing-mass method. Does not depend on D branching fractions or B^+/B^0 production rates. NODE=S041R1;LINKAGE=RT

[5] AHMED 02B reports an additional uncertainty on the branching ratios to account for 4.5% uncertainty on relative production of B^0 and B^+, which is not included here. NODE=S041R1;LINKAGE=H3

[6] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses the Mark III branching fractions for the D. NODE=S041R1;LINKAGE=B9

[7] BEBEK 87 value has been updated in BERKELMAN 91 to use same assumptions as noted for BORTOLETTO 92. NODE=S041R1;LINKAGE=A

[8] AUBERT,B 04P reports $[\Gamma(B^+\to\overline{D}^0\pi^+)/\Gamma_{total}]\times[B(D^0\to K^-\pi^+)] = (1.846\pm0.032\pm0.097)\times10^{-4}$ which we divide by our best value $B(D^0\to K^-\pi^+) = (3.949\pm0.031)\times10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R1;LINKAGE=AU

[9] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the CLEO II absolute $B(D^0\to K^-\pi^+)$ and the PDG 1992 $B(D^0\to K^-\pi^+\pi^0)/B(D^0\to K^-\pi^+)$ and $B(D^0\to K^-2\pi^+\pi^-)/B(D^0\to K^-\pi^+)$. NODE=S041R1;LINKAGE=E

[10] ALBRECHT 88K assumes $B^0\overline{B}^0$:B^+B^- ratio is 45:55. Superseded by ALBRECHT 90J. NODE=S041R1;LINKAGE=D

$\Gamma(\overline{D}^0\rho^+)/\Gamma_{total}$ — Γ_{62}/Γ

NODE=S041R25

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
0.97 ±0.11 OUR AVERAGE Error includes scale factor of 2.1.					
$0.939\pm0.021\pm0.050$		[1] ADACHI	24D	BELL	$e^+e^-\to\Upsilon(4S)$
$1.35\pm0.12\pm0.15$	212	[2] ALAM	94	CLE2	$e^+e^-\to\Upsilon(4S)$
$1.3\pm0.4\pm0.4$	19	[3] ALBRECHT	90J	ARG	$e^+e^-\to\Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$2.1\pm0.8\pm0.9$	10	[4] ALBRECHT	88K	ARG	$e^+e^-\to\Upsilon(4S)$

[1] ADACHI 24D uses $B(\Upsilon(4S)\to B^+B^-) = 0.516\pm0.012$. NODE=S041R25;LINKAGE=B

[2] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the CLEO II absolute $B(D^0\to K^-\pi^+)$ and the PDG 1992 $B(D^0\to K^-\pi^+\pi^0)/B(D^0\to K^-\pi^+)$ and $B(D^0\to K^-2\pi^+\pi^-)/B(D^0\to K^-\pi^+)$. NODE=S041R25;LINKAGE=E

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses the Mark III branching fractions for the D. NODE=S041R25;LINKAGE=B9

[4] ALBRECHT 88K assumes $B^0\overline{B}^0$:B^+B^- ratio is 45:55. NODE=S041R25;LINKAGE=A

$\Gamma(\overline{D}^0 K^+)/\Gamma(\overline{D}^0 \pi^+)$ Γ_{63}/Γ_{59}

NODE=S041B07
NODE=S041B07

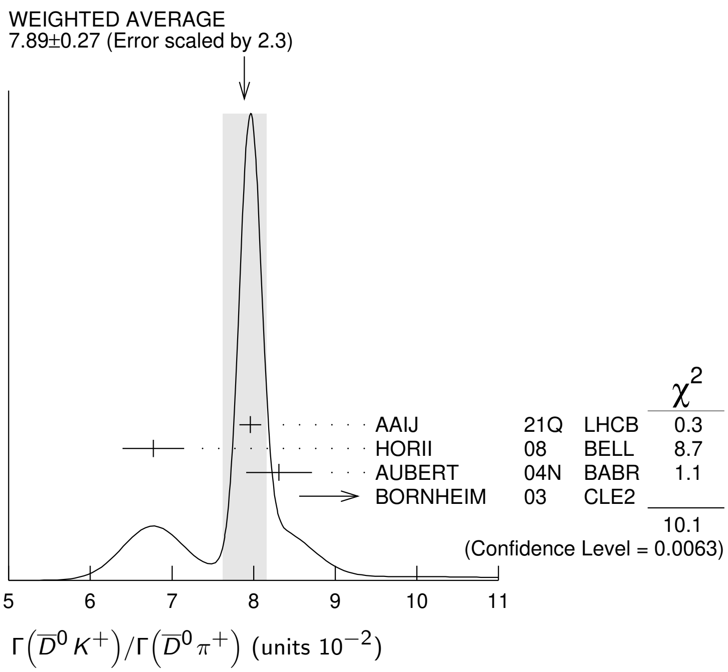
VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
7.89 ±0.27 OUR AVERAGE	Error includes scale factor of 2.3. See the ideogram below.			
7.96 ±0.03 ±0.13	AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
6.77 ±0.23 ±0.30	HORII	08	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
8.31 ±0.35 ±0.20	AUBERT	04N	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
9.9 $^{+1.4}_{-1.2}$ $^{+0.7}_{-0.6}$	BORNHEIM	03	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
7.768±0.038±0.066	[1,2] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV
7.79 ±0.06 ±0.19	AAIJ	16L	LHCB	pp at 7, 8 TeV
7.93 ±0.10 ±0.18	[3] AAIJ	16L	LHCB	pp at 7, 8 TeV
7.71 ±0.17 ±0.26	[3] AAIJ	13AE	LHCB	Repl. by AAIJ 16L
7.74 ±0.12 ±0.19	AAIJ	12M	LHCB	Repl. by AAIJ 16L
9.4 ±0.9 ±0.7	ABE	03D	BELL	Repl. by SWAIN 03
7.7 ±0.5 ±0.6	SWAIN	03	BELL	Repl. by HORII 08
7.9 ±0.9 ±0.6	ABE	01I	BELL	Repl. by ABE 03D
5.5 ±1.4 ±0.5	ATHANAS	98	CLE2	Repl. by BORNHEIM 03

OCCUR=2

[1] Supersedes AAIJ 16L. NODE=S041B07;LINKAGE=A

[2] Superseded by AAIJ 21Q. NODE=S041B07;LINKAGE=B

[3] Uses $B^\pm \rightarrow [K^\pm \pi^\mp \pi^+ \pi^-]_D h^\pm$ mode. NODE=S041B07;LINKAGE=AJ



$\Gamma(D_{CP(+1)} K^+)/\Gamma(D_{CP(+1)} \pi^+)$ Γ_{64}/Γ_{60}

NODE=S041B97
NODE=S041B97

VALUE	DOCUMENT ID		TECN	COMMENT
0.089±0.008 OUR AVERAGE				
0.089±0.008±0.003	[1,2] ABE	06	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
0.088±0.016±0.005	[3] AUBERT	04N	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.125±0.036±0.010	[3] ABE	03D	BELL	Repl. by SWAIN 03
0.093±0.018±0.008	[3] SWAIN	03	BELL	Repl. by ABE 06

[1] Reports a double ratio of B($B^+ \rightarrow D_{CP(+1)} K^+$)/B($B^+ \rightarrow D_{CP(+1)} \pi^+$) and B($B^+ \rightarrow \overline{D}^0 K^+$)/B($B^+ \rightarrow \overline{D}^0 \pi^+$), 1.13 ± 0.16 ± 0.08. We multiply by our best value of B($B^+ \rightarrow \overline{D}^0 K^+$)/B($B^+ \rightarrow \overline{D}^0 \pi^+$) = 0.083 ± 0.006. Our first error is their experiment's error and the second error is systematic error from using our best value. NODE=S041B97;LINKAGE=AB

[2] ABE 06 reports $[\Gamma(B^+ \rightarrow D_{CP(+1)} K^+)/\Gamma(B^+ \rightarrow D_{CP(+1)} \pi^+)]$ / $[\Gamma(B^+ \rightarrow \overline{D}^0 K^+)/\Gamma(B^+ \rightarrow \overline{D}^0 \pi^+)]$ = 1.13 ± 0.06 ± 0.08 which we multiply by our best value $\Gamma(B^+ \rightarrow \overline{D}^0 K^+)/\Gamma(B^+ \rightarrow \overline{D}^0 \pi^+)$ = 0.0789 ± 0.0027. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B97;LINKAGE=AE

[3] CP=+1 eigenstate of $D^0 \overline{D}^0$ system is reconstructed via K^+K^- and $\pi^+\pi^-$. NODE=S041B97;LINKAGE=A

$\Gamma(D_{CP(+1)}K^+)/\Gamma(\overline{D}^0K^+)$ Γ_{64}/Γ_{63}

NODE=S041C18
NODE=S041C18

VALUE	DOCUMENT ID		TECN	COMMENT
0.497±0.009 OUR AVERAGE	Error includes scale factor of 1.4. See the ideogram below.			
0.582±0.041±0.018	[1] ADACHI	24I	BELL	$e^+e^- \to \Upsilon(4S)$
0.494±0.008±0.006	[2] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV
0.496±0.014±0.008	[3] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV
0.489±0.010±0.009	[4] AAIJ	16L	LHCB	pp at 7, 8 TeV
0.65 ±0.12 ±0.06	[5] AALTONEN	10A	CDF	$p\overline{p}$ at 1.96 TeV
0.590±0.045±0.025	[6] DEL-AMO-SA...	10G	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.504±0.019±0.006	[7] AAIJ	12M	LHCB	Repl. by AAIJ 16L
0.53 ±0.05 ±0.025	AUBERT	08AA	BABR	Repl. by DEL-AMO-SANCHEZ 10G
0.45 ±0.06 ±0.02	AUBERT	06J	BABR	Repl. by AUBERT 08AA

OCCUR=2

[1] Reports $R_{CP+} = 1.164 \pm 0.081 \pm 0.036$ that we have divided by 2. NODE=S041C18;LINKAGE=D

[2] Uses $D \to K^+K^-$ decay mode and reports $R_{CP+} = 0.988 \pm 0.015 \pm 0.011$ which we have divided by 2. NODE=S041C18;LINKAGE=B

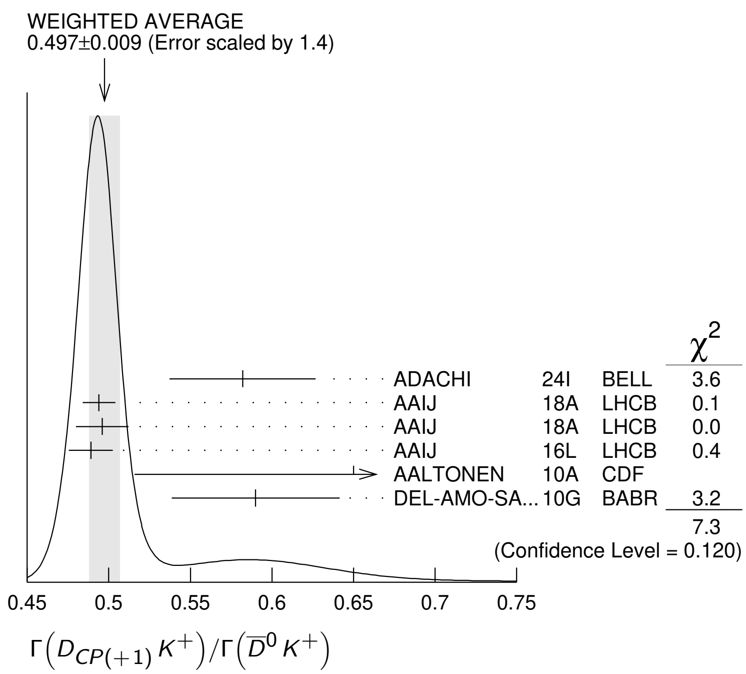
[3] Uses $D \to \pi^+\pi^-$ decay mode and reports $R_{CP+} = 0.992 \pm 0.027 \pm 0.015$ which we have divided by 2. NODE=S041C18;LINKAGE=C

[4] AAIJ 16L reports $R_{CP+} = 0.978 \pm 0.019 \pm 0.018$ which we have divided by 2. NODE=S041C18;LINKAGE=A

[5] Reports $R_{CP+} = 2\,(\mathrm{B}(B^- \to D_{CP(+1)}K^-) + \mathrm{B}(B^+ \to D_{CP(+1)}K^+))\,/\,(\mathrm{B}(B^- \to D^0K^-) + \mathrm{B}(B^+ \to \overline{D}^0K^+)) = 1.30 \pm 0.24 \pm 0.12$ that we have divided by 2. NODE=S041C18;LINKAGE=AA

[6] Reports $R_{CP+} = 1.18 \pm 0.09 \pm 0.05$ that we have divided by 2. NODE=S041C18;LINKAGE=DE

[7] AAIJ 12M reports $R_{CP+} = 1.007 \pm 0.038 \pm 0.012$ which we have divided by 2. NODE=S041C18;LINKAGE=AI



$\Gamma(D_{CP(-1)}K^+)/\Gamma(D_{CP(-1)}\pi^+)$ Γ_{65}/Γ_{61}

NODE=S041B98
NODE=S041B98

VALUE	DOCUMENT ID		TECN	COMMENT
0.097±0.016±0.007	[1] ABE	06	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.119±0.028±0.006	[2] ABE	03D	BELL	Repl. by SWAIN 03
0.108±0.019±0.007	[2] SWAIN	03	BELL	Repl. by ABE 06

[1] Reports a double ratio of $\mathrm{B}(B^+ \to D_{CP(-1)}K^+)/\mathrm{B}(B^+ \to D_{CP(-1)}\pi^+)$ and $\mathrm{B}(B^+ \to \overline{D}^0K^+)/\mathrm{B}(B^+ \to \overline{D}^0\pi^+)$, $1.17 \pm 0.14 \pm 0.14$. We multiply by our best value of $\mathrm{B}(B^+ \to \overline{D}^0K^+)/\mathrm{B}(B^+ \to \overline{D}^0\pi^+) = 0.083 \pm 0.006$. Our first error is their experiment's error and the second error is systematic error from using our best value. NODE=S041B98;LINKAGE=AB

[2] $CP{=}-1$ eigenstate of $D^0\overline{D}^0$ system is reconstructed via $K^0_S\pi^0$, $K^0_S\omega$, $K^0_S\phi$, $K^0_S\eta$, and $K^0_S\eta'$. NODE=S041B98;LINKAGE=A

$\Gamma(D_{CP(-1)} K^+)/\Gamma(\overline{D}^0 K^+)$ Γ_{65}/Γ_{63}

NODE=S041C19

VALUE	DOCUMENT ID		TECN	COMMENT
0.561±0.029 OUR AVERAGE				
0.576±0.037±0.010	[1] ADACHI	24I	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
0.54 ±0.04 ±0.02	[2] DEL-AMO-SA...	10G	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.515±0.05 ±0.025	AUBERT	08AA	BABR	Repl. by DEL-AMO-SANCHEZ 10G
0.43 ±0.05 ±0.02	AUBERT	06J	BABR	Repl. by AUBERT 08AA

[1] Reports $R_{CP+} = 1.151 \pm 0.074 \pm 0.019$ that we have divided by 2. NODE=S041C19;LINKAGE=A

[2] Reports $R_{CP+} = 1.07 \pm 0.08 \pm 0.04$ that we have divided by 2. NODE=S041C19;LINKAGE=DE

$\Gamma(D^0 K^+)/\Gamma(\overline{D}^0 K^+)$ Γ_{66}/Γ_{63}

NODE=S041P62

VALUE (units 10^{-3})	DOCUMENT ID
9.88±0.52 OUR EVALUATION	(Produced by HFLAV)

→ UNCHECKED ←

$\Gamma([K^-\pi^+]_D K^+)/\Gamma_{total}$ Γ_{67}/Γ

NODE=S041C51

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<2.8 \times 10^{-7}$	90	HORII	08	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<6.3 \times 10^{-7}$	90	SAIGO	05	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

$\Gamma([K^-\pi^+]_D K^+)/\Gamma([K^+\pi^-]_D K^+)$ Γ_{67}/Γ_{68}

NODE=S041Q12

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
17.2±0.6 OUR AVERAGE					
17.3±0.6		[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
22.0±8.6±2.6		[2] AALTONEN	11AJ	CDF	$p\overline{p}$ at 1.96 TeV
$16.3^{+4.4}_{-4.1}{}^{+0.7}_{-1.3}$		HORII	11	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
11 ±6 ±2		DEL-AMO-SA...	10H	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
18.8±1.1±1.0		[3] AAIJ	16L	LHCB	pp at 7, 8 TeV
15.2±2.0±0.4		AAIJ	12M	LHCB	Repl. by AAIJ 16L
$7.8^{+6.2}_{-5.7}{}^{+2.0}_{-2.8}$		HORII	08	BELL	Repl. by HORII 11
<29	90	[4] AUBERT	05G	BABR	Repl. by DEL-AMO-SANCHEZ 10H
<44	90	[5] SAIGO	05	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
<26	90	[6] AUBERT,B	04L	BABR	Repl. by AUBERT 05G

[1] AAIJ 21Q reports the charge-averaged rate, where the statistical and systematic uncertainties have been combined according to the correlations between the observables. The individual ratio of $B^- \rightarrow [K^+\pi^-]_D K^-$ and $B^- \rightarrow [K^-\pi^+]_D K^-$ and the ratio of $B^+ \rightarrow [K^-\pi^+]_D K^+$ and $B^+ \rightarrow [K^+\pi^-]_D K^+$ are also reported to be $(9.5 \pm 0.5 \pm 0.3) \times 10^{-3}$ and $(25.2 \pm 0.8 \pm 0.4) \times 10^{-3}$, respectively. NODE=S041Q12;LINKAGE=A

[2] AALTONEN 11AJ also measures the ratio separately for B^+ ($R^+(K)$) and B^- ($R^-(K)$) and obtains: $R^+(K) = (42.6 \pm 13.7 \pm 2.8) \times 10^{-3}$, $R^-(K) = (3.8 \pm 10.3 \pm 2.7) \times 10^{-3}$. NODE=S041Q12;LINKAGE=AA

[3] Superseded by AAIJ 21Q. NODE=S041Q12;LINKAGE=C

[4] AUBERT 05G extract a constraint on the magnitude of the ratio of amplitudes $|A(B^+ \rightarrow D^0 K^+) / A(B^+ \rightarrow \overline{D}^0 K^+)| < 0.23$ at 90% CL (Bayesian). Similar measurements from $B^+ \rightarrow D^{*0} K^+$ are also reported. NODE=S041Q12;LINKAGE=AB

[5] SAIGO 05 extract a constraint on the magnitude of the ratio of amplitudes $|A(B^+ \rightarrow D^0 K^+) / A(B^+ \rightarrow \overline{D}^0 K^+)| < 0.27$ at 90% CL. NODE=S041Q12;LINKAGE=SA

[6] AUBERT,B 04L extract a constraint on the magnitude of the ratio of amplitudes $|A(B^+ \rightarrow D^0 K^+)/A(B^+ \rightarrow \overline{D}^0 K^+)| < 0.22$ at 90% CL. NODE=S041Q12;LINKAGE=AU

$\Gamma([K^-\pi^+\pi^0]_D K^+)/\Gamma([K^+\pi^-\pi^0]_D K^+)$ Γ_{69}/Γ_{70}

NODE=S041Q89

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
13.1±1.6 OUR AVERAGE					
12.7±1.6±0.2		AAIJ	22T	LHCB	pp at 7, 8, 13 TeV
19.8±6.2±2.4		NAYAK	13	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
14.0±4.7±2.1		[1] AAIJ	15W	LHCB	Repl. by AAIJ 22T
<21	90	[2] LEES	11D	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
<39	95	[3] AUBERT	07BN	BABR	Repl. by LEES 11D

[1] Uses $D^0 \to K^- \pi^+ \pi^0$ for the favored mode, and $D^0 \to K^+ \pi^- \pi^0$ for the suppressed mode. NODE=S041Q89;LINKAGE=A

[2] Extracts a constraint on the magnitude of the ratio of amplitudes $|A(B^+ \to D^0 K^+)/A(B^+ \to \overline{D}^0 K^+)| < 0.13$ at 95% CL. NODE=S041Q89;LINKAGE=LE

[3] Extracts a constraint on the magnitude of the ratio of amplitudes $|A(B^+ \to D^0 K^+)/A(B^+ \to \overline{D}^0 K^+)| < 0.19$ at 95% CL. NODE=S041Q89;LINKAGE=AU

$\Gamma([K^-\pi^+\pi^+\pi^-]_D K^+)/\Gamma([K^+\pi^-\pi^+\pi^-]_D K^+)$ Γ_{71}/Γ_{72}

NODE=S041C79
NODE=S041C79

VALUE (units 10^{-2})		DOCUMENT ID		TECN	COMMENT
1.333±0.055±0.008		AAIJ	23I	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1.40 ±0.15 ±0.06	[1]	AAIJ	16L	LHCB	pp at 7, 8 TeV
1.24 ±0.27		AAIJ	13AE	LHCB	Repl. by AAIJ 16L

[1] Superseded by AAIJ 23I. NODE=S041C79;LINKAGE=A

$\Gamma([\pi^+\pi^+\pi^-\pi^-]K^+)/\Gamma([K^+\pi^-\pi^+\pi^-]_D K^+)$ Γ_{73}/Γ_{72}

NODE=S041P27
NODE=S041P27

VALUE	DOCUMENT ID		TECN	COMMENT
0.975±0.037±0.019	AAIJ	16L	LHCB	pp at 7, 8 TeV

$\Gamma([K^-\pi^+]_D K^*(892)^+)/\Gamma([K^+\pi^-]_D K^*(892)^+)$ Γ_{75}/Γ_{76}

NODE=S041Q63
NODE=S041Q63

VALUE	DOCUMENT ID		TECN	COMMENT
0.012±0.004 OUR AVERAGE				
0.011±0.004±0.001	AAIJ	17BO	LHCB	pp at 7, 8, 13 TeV
0.066±0.031±0.010	AUBERT	09AJ	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.046±0.031±0.008	AUBERT,B	05V	BABR	Repl. by AUBERT 09AJ

$\Gamma([K^-\pi^+\pi^-\pi^+]_D K^*(892)^+)/\Gamma([K^+\pi^-\pi^+\pi^-]_D K^*(892)^+)$ Γ_{77}/Γ_{78}

NODE=S041P50
NODE=S041P50

VALUE	DOCUMENT ID		TECN	COMMENT
0.011±0.005±0.003	AAIJ	17BO	LHCB	pp at 7, 8, 13 TeV

$\Gamma([\pi^+\pi^-\pi^+\pi^-]_D K^*(892)^+)/\Gamma([K^+\pi^-\pi^+\pi^-]_D K^*(892)^+)$ Γ_{74}/Γ_{78}

NODE=S041P51
NODE=S041P51

VALUE	DOCUMENT ID		TECN	COMMENT
1.08±0.13±0.03	AAIJ	17BO	LHCB	pp at 7, 8, 13 TeV

$\Gamma([K^-\pi^+]_D \pi^+)/\Gamma_{total}$ Γ_{79}/Γ

NODE=S041Q48
NODE=S041Q48

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
$6.29^{+1.02}_{-0.98}{}^{+0.37}_{-0.48}$	HORII	08	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$6.6^{+1.9}_{-1.7}\pm0.5$	SAIGO	05	BELL	Repl. by HORII 08

$\Gamma([K^-\pi^+]_D \pi^+)/\Gamma([K^+\pi^-]_D \pi^+)$ Γ_{79}/Γ_{80}

NODE=S041Q49
NODE=S041Q49

VALUE (units 10^{-3})		DOCUMENT ID		TECN	COMMENT
3.66±0.07 OUR AVERAGE					
3.68±0.07	[1]	AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
2.8 ±0.7 ±0.4	[2]	AALTONEN	11AJ	CDF	$p\overline{p}$ at 1.96 TeV
$3.28^{+0.38}_{-0.36}{}^{+0.12}_{-0.18}$		HORII	11	BELL	$e^+e^- \to \Upsilon(4S)$
3.3 ±0.6 ±0.4		DEL-AMO-SA...	10H	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
3.60±0.12±0.09	[3]	AAIJ	16L	LHCB	pp at 7, 8 TeV
4.10±0.25±0.05		AAIJ	12M	LHCB	Repl. by AAIJ 16L
$3.40^{+0.55}_{-0.53}{}^{+0.15}_{-0.22}$		HORII	08	BELL	Repl. by HORII 11
$3.5^{+1.0}_{-0.9}\pm0.2$		SAIGO	05	BELL	Repl. by HORII 08

[1] AAIJ 21Q gives the charge-averaged rate, where the statistical and systematic uncertainties have been combined according to the correlations between the observables. The individual ratio of $B^- \to [K^+\pi^-]_D K^-$ and $B^- \to [K^-\pi^+]_D K^-$ and the ratio of $B^+ \to [K^-\pi^+]_D \pi^+$ and $B^+ \to [K^+\pi^-]_D \pi^+$ are also reported to be $(4.15 \pm 0.08 \pm 0.04) \times 10^{-3}$ and $(3.20 \pm 0.07 \pm 0.04) \times 10^{-3}$, respectively. NODE=S041Q49;LINKAGE=A

[2] AALTONEN 11AJ also measures the ratio separately for B^+ ($R^+(\pi)$) and B^- ($R^-(\pi)$) and obtains: $R^+(\pi) = (2.4 \pm 1.0 \pm 0.4) \times 10^{-3}$, $R^-(K) = (3.1 \pm 1.1 \pm 0.4) \times 10^{-3}$. NODE=S041Q49;LINKAGE=AA

[3] Superseded by AAIJ 21Q. NODE=S041Q49;LINKAGE=C

$\Gamma([K^-\pi^+\pi^0]_D\pi^+)/\Gamma([K^+\pi^-\pi^0]_D\pi^+)$ — Γ_{81}/Γ_{82}

NODE=S041C81
NODE=S041C81

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
2.05±0.19 OUR AVERAGE				
2.07±0.20±0.03	AAIJ	22T	LHCB	pp at 7, 8, 13 TeV
$1.89\pm0.54^{+0.22}_{-0.25}$	NAYAK	13	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2.35±0.49±0.06	[1] AAIJ	15W	LHCB	Repl. by AAIJ 22T

[1] Uses $D^0 \to K^-\pi^+\pi^0$ for the favored mode, and $D^0 \to K^+\pi^-\pi^0$ for the suppressed mode.

NODE=S041C81;LINKAGE=A

$\Gamma([K^-\pi^+\pi^+\pi^-]_D\pi^+)/\Gamma([K^+\pi^-\pi^+\pi^-]_D\pi^+)$ — Γ_{83}/Γ_{84}

NODE=S041C80
NODE=S041C80

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
3.45±0.07±0.01	AAIJ	23I	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
3.77±0.18±0.06	[1] AAIJ	16L	LHCB	pp at 7, 8 TeV
3.7 ±0.4	AAIJ	13AE	LHCB	Repl. by AAIJ 16L

[1] Superseded by AAIJ 23I.

NODE=S041C80;LINKAGE=B

$\Gamma(([K^-\pi^+]_D\pi^0)_{D^*}\pi^+)/\Gamma(([K^+\pi^-]_D\pi^0)_{D^*}\pi^+)$ — Γ_{85}/Γ_{86}

NODE=S041QD0
NODE=S041QD0

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
4.3 ±0.7 OUR AVERAGE Error includes scale factor of 1.1.				
4.71±0.77	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
3.2 ±0.9 ±0.8	DEL-AMO-SA...	10H	BABR	$e^+e^- \to \Upsilon(4S)$

[1] AAIJ 21Q gives the charge-averaged rate, where the statistical and systematic uncertainties have been combined according to the correlations between the observables. The individual ratio of $B^- \to ([K^+\pi^-]_D\pi^0)_{D^*}\pi^-$ to $B^- \to ([K^-\pi^+]_D\pi^0)_{D^*}\pi^-$ and the ratio of $B^+ \to ([K^-\pi^+]_D\pi^0)_{D^*}\pi^+$ to $B^+ \to ([K^+\pi^-]_D\pi^0)_{D^*}\pi^+$, without inclusion of the neutral pion in the reconstruction, are also reported to be $(4.05 \pm 0.56 \pm 0.59) \times 10^{-3}$ and $(5.36 \pm 0.56 \pm 0.58) \times 10^{-3}$, respectively.

NODE=S041QD0;LINKAGE=A

$\Gamma(([K^-\pi^+]_D\gamma)_{D^*}\pi^+)/\Gamma(([K^+\pi^-]_D\gamma)_{D^*}\pi^+)$ — Γ_{87}/Γ_{88}

NODE=S041QD1
NODE=S041QD1

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
3.9 ±1.2 OUR AVERAGE				
4.20±1.38	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
2.7 ±1.4 ±2.2	DEL-AMO-SA...	10H	BABR	$e^+e^- \to \Upsilon(4S)$

[1] AAIJ 21Q gives the charge-averaged rate, where the statistical and systematic uncertainties have been combined according to the correlations between the observables. The individual the ratio of $B^- \to ([K^+\pi^-]_D\gamma)_{D^*}\pi^-$ to $B^- \to ([K^-\pi^+]_D\gamma)_{D^*}\pi^-$ and the ratio of $B^+ \to ([K^-\pi^+]_D\gamma)_{D^*}\pi^+$ to $B^+ \to ([K^+\pi^-]_D\gamma)_{D^*}\pi^+$, without inclusion of the photon in the reconstruction, are also reported to be $(4.72 \pm 0.92 \pm 1.18) \times 10^{-3}$ and $(4.03 \pm 0.91 \pm 1.14) \times 10^{-3}$, respectively.

NODE=S041QD1;LINKAGE=A

$\Gamma(([K^-\pi^+]_D\pi^0)_{D^*}K^+)/\Gamma(([K^+\pi^-]_D\pi^0)_{D^*}K^+)$ — Γ_{89}/Γ_{90}

NODE=S041QD2
NODE=S041QD2

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
2.6±2.7 OUR AVERAGE Error includes scale factor of 2.8.				
11.8±3.4	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
1.8±0.9±0.4	DEL-AMO-SA...	10H	BABR	$e^+e^- \to \Upsilon(4S)$

[1] AAIJ 21Q gives the charge-averaged rate, where the statistical and systematic uncertainties have been combined according to the correlations between the observables. The individual ratio of $B^- \to ([K^+\pi^-]_D\pi^0)_{D^*}K^-$ to $B^- \to ([K^-\pi^+]_D\pi^0)_{D^*}K^-$ and the ratio of $B^+ \to ([K^-\pi^+]_D\pi^0)_{D^*}K^+$ to $B^+ \to ([K^+\pi^-]_D\pi^0)_{D^*}K^+$, without inclusion of the neutral pion in the reconstruction, are also reported to be $(20.2 \pm 3.5 \pm 2.3) \times 10^{-3}$ and $(3.3 \pm 3.5 \pm 2.2) \times 10^{-3}$, respectively.

NODE=S041QD2;LINKAGE=A

$\Gamma(([K^-\pi^+]_D\gamma)_{D^*}K^+)/\Gamma(([K^+\pi^-]_D\gamma)_{D^*}K^+)$ — Γ_{91}/Γ_{92}

NODE=S041QD3
NODE=S041QD3

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
1.3± 1.6 OUR AVERAGE				
16.3±37.3	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
1.3± 1.4±0.8	DEL-AMO-SA...	10H	BABR	$e^+e^- \to \Upsilon(4S)$

[1] AAIJ 21Q gives the charge-averaged rate, where the statistical and systematic uncertainties have been combined according to the correlations between the observables. The individual ratio of $B^- \to ([K^+\pi^-]_D\gamma)_{D^*}K^-$ to $B^- \to ([K^-\pi^+]_D\gamma)_{D^*}K^-$ and the ratio of $B^+ \to ([K^-\pi^+]_D\gamma)_{D^*}K^+$ to $B^+ \to ([K^+\pi^-]_D\gamma)_{D^*}K^+$, without inclusion of the photon in the reconstruction, are also reported to be $(11.7 \pm 21.5 \pm 31.3) \times 10^{-3}$ and $(29.2 \pm 21.4 \pm 31.2) \times 10^{-3}$, respectively.

NODE=S041QD3;LINKAGE=A

$\Gamma([\pi^+\pi^-\pi^0]_D K^-)/\Gamma_{total}$ — Γ_{93}/Γ

NODE=S041Q56

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
4.6±0.8±0.4	[1] AUBERT 07BJ	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
5.5±1.0±0.7	[1] AUBERT,B 05T	BABR	Repl. by AUBERT 07BJ

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041Q56;LINKAGE=EP

$\Gamma([K^0_S K^+\pi^-]_D K^+)/\Gamma([K^0_S K^+\pi^-]_D \pi^+)$ — Γ_{94}/Γ_{100}

NODE=S041RA9

VALUE	DOCUMENT ID	TECN	COMMENT
0.103±0.015 OUR AVERAGE	Error includes scale factor of 1.9.		
0.122±0.012±0.004	[1] ADACHI 23L	BELL	$e^+e^- \to \Upsilon(4S)$
0.092±0.009±0.004	[1] AAIJ 14V	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.081±0.008±0.004	[2] AAIJ 20N	LHCB	pp at 7, 8, 13 TeV

[1] The anaysis uses all of $D \to K^0_S K\pi$ Dalitz decays.

NODE=S041RA9;LINKAGE=AA

[2] The analysis uses $D \to K^0_S K\pi$ Dalitz decays with $K^{*-}K^+$ region excluded.

NODE=S041RA9;LINKAGE=A

$\Gamma([K^0_S K^-\pi^+]_D K^+)/\Gamma([K^0_S K^-\pi^+]_D \pi^+)$ — Γ_{96}/Γ_{98}

NODE=S041RA0

VALUE	DOCUMENT ID	TECN	COMMENT
0.075±0.013 OUR AVERAGE	Error includes scale factor of 1.7.		
0.093±0.013±0.003	[1] ADACHI 23L	BELL	$e^+e^- \to \Upsilon(4S)$
0.066±0.009±0.002	[1] AAIJ 14V	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.073±0.006±0.002	[2] AAIJ 20N	LHCB	pp at 7, 8, 13 TeV

[1] The anaysis uses all of $D \to K^0_S K\pi$ Dalitz decays.

NODE=S041RA0;LINKAGE=AA

[2] The analysis uses $D \to K^0_S K\pi$ Dalitz decays with $K^{*-}K^+$ region excluded.

NODE=S041RA0;LINKAGE=A

$\Gamma([K^*(892)^- K^+]_D K^+)/\Gamma([K^*(892)^- K^+]_D \pi^+)$ — Γ_{95}/Γ_{101}

NODE=S041RB1

VALUE	DOCUMENT ID	TECN	COMMENT
0.080±0.004 OUR AVERAGE			
0.093±0.012±0.005	[1] ADACHI 23L	BELL	$e^+e^- \to \Upsilon(4S)$
0.079±0.004±0.002	[1] AAIJ 20N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.084±0.011±0.003	[1] AAIJ 14V	LHCB	Repl. by AAIJ 20N

[1] The Analysis uses $D \to K^*(892)K \to K^0_S K\pi$ decays.

NODE=S041RB1;LINKAGE=AA

$\Gamma([K^*(892)^+ K^-]_D K^+)/\Gamma([K^*(892)^+ K^-]_D \pi^+)$ — Γ_{97}/Γ_{99}

NODE=S041RB2

VALUE	DOCUMENT ID	TECN	COMMENT
0.066±0.012 OUR AVERAGE	Error includes scale factor of 1.9.		
0.103±0.020±0.006	[1] ADACHI 23L	BELL	$e^+e^- \to \Upsilon(4S)$
0.062±0.006±0.003	[1] AAIJ 20N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.056±0.013±0.002	[1] AAIJ 14V	LHCB	Repl. by AAIJ 20N

[1] The Analysis uses $D \to K^*(892)K \to K^0_S K\pi$ decays.

NODE=S041RB2;LINKAGE=AA

$\Gamma([K^0_S K^+\pi^-]_D \pi^+)/\Gamma([K^0_S K^-\pi^+]_D \pi^+)$ — Γ_{100}/Γ_{98}

NODE=S041RA8

VALUE	DOCUMENT ID	TECN	COMMENT
1.47 ±0.05 OUR AVERAGE	Error includes scale factor of 1.2.		
1.428±0.057±0.002	[1] ADACHI 23L	BELL	$e^+e^- \to \Upsilon(4S)$
1.528±0.058±0.025	[1] AAIJ 14V	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.706±0.019±0.009	[2] AAIJ 20N	LHCB	pp at 7, 8, 13 TeV

[1] The anaysis uses all of $D \to K^0_S K\pi$ Dalitz decays.

NODE=S041RA8;LINKAGE=AA

[2] The analysis uses $D \to K^0_S K\pi$ Dalitz decays with $K^{*-}K^+$ region excluded.

NODE=S041RA8;LINKAGE=A

$\Gamma([K^+K^-\pi^0]_D K^+)/\Gamma([K^+K^-\pi^0]_D \pi^+)$ — $\Gamma_{102}/\Gamma_{103}$

NODE=S041RB3

VALUE	DOCUMENT ID	TECN	COMMENT
0.95±0.22±0.05	[1] AAIJ 15W	LHCB	pp at 7, 8 TeV

[1] Uses $D \to K^+K^-\pi^0$ mode.

NODE=S041RB3;LINKAGE=A

$\Gamma([\pi^+\pi^-\pi^0]_D K^+)/\Gamma([\pi^+\pi^-\pi^0]_D \pi^+)$ — $\Gamma_{104}/\Gamma_{105}$

NODE=S041RB4

VALUE	DOCUMENT ID	TECN	COMMENT
0.98±0.11±0.05	[1] AAIJ 15W	LHCB	pp at 7, 8 TeV

[1] Uses $D \to \pi^+\pi^-\pi^0$ mode.

NODE=S041RB4;LINKAGE=A

$\Gamma([K^*(892)^- K^+]_D \pi^+)/\Gamma([K^*(892)^+ K^-]_D \pi^+)$ — Γ_{101}/Γ_{99}

NODE=S041RB0

VALUE	DOCUMENT ID		TECN	COMMENT
2.56 ±0.06 OUR AVERAGE Error includes scale factor of 1.2.				
2.412±0.132±0.019	[1] ADACHI	23L	BELL	$e^+ e^- \to \Upsilon(4S)$
2.585±0.057±0.019	[1] AAIJ	20N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2.57 ±0.13 ±0.06	[1] AAIJ	14V	LHCB	Repl. by AAIJ 20N

[1] The Analysis uses $D \to K^*(892) K \to K^0_S K \pi$ decays.

NODE=S041RB0;LINKAGE=AA

$\Gamma(\overline{D}^0 K^*(892)^+)/\Gamma_{total}$ — Γ_{106}/Γ

NODE=S041B57

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
5.3 ±0.4 OUR AVERAGE				
5.29±0.30±0.34	[1] AUBERT	06Z	BABR	$e^+ e^- \to \Upsilon(4S)$
6.1 ±1.6 ±1.7	[1] MAHAPATRA	02	CLE2	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
6.3 ±0.7 ±0.5	[1] AUBERT	04Q	BABR	Repl. by AUBERT 06Z

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B57;LINKAGE=EP

$\Gamma(D_{CP(-1)} K^*(892)^+)/\Gamma(\overline{D}^0 K^*(892)^+)$ — $\Gamma_{107}/\Gamma_{106}$

NODE=S041Q61

VALUE	DOCUMENT ID		TECN	COMMENT
0.515±0.135±0.065	[1] AUBERT	09AJ	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.325±0.13 ±0.04	[2] AUBERT,B	05U	BABR	Repl. by AUBERT 09AJ

[1] The authors report $R_{CP-} = 1.03 \pm 0.27 \pm 0.13$ which is, assuming CP conservation, twice the value of the quoted above branching ratio,

NODE=S041Q61;LINKAGE=AB

[2] The authors report $R_{CP-} = 0.65 \pm 0.26 \pm 0.08$ which is, assuming CP conservation, twice the value of the quoted above branching ratio.

NODE=S041Q61;LINKAGE=AU

$\Gamma(D_{CP(+1)} K^*(892)^+)/\Gamma(\overline{D}^0 K^*(892)^+)$ — $\Gamma_{108}/\Gamma_{106}$

NODE=S041Q62

VALUE	DOCUMENT ID		TECN	COMMENT
1.16 ±0.08 OUR AVERAGE				
1.18 ±0.08 ±0.02	[1] AAIJ	18X	LHCB	pp at 7, 8, 13 TeV
1.085±0.175±0.045	[2] AUBERT	09AJ	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1.18 ±0.08 ±0.01	[3] AAIJ	17BO	LHCB	Repl. by AAIJ 18X
0.98 ±0.20 ±0.055	[4] AUBERT,B	05U	BABR	Repl. by AUBERT 09AJ

[1] Measures the ratio separately for $K^+ K^-$ and $\pi^+ \pi^-$ final states, $R_{KK} = 1.22 \pm 0.09 \pm 0.02$ and $R_{\pi\pi} = 1.08 \pm 0.14 \pm 0.03$, and combines the two results.

NODE=S041Q62;LINKAGE=B

[2] The authors report $R_{CP+} = 2.17 \pm 0.35 \pm 0.09$ which is, assuming CP conservation, twice the value of the quoted above branching ratio,

NODE=S041Q62;LINKAGE=AB

[3] Measures the ratio separately for $K^+ K^-$ and $\pi^+ \pi^-$ final states, $R_{KK} = 1.22 \pm 0.09 \pm 0.01$ and $R_{\pi\pi} = 1.08 \pm 0.14 \pm 0.03$, and combines the two results.

NODE=S041Q62;LINKAGE=A

[4] The authors report $R_{CP+} = 1.96 \pm 0.40 \pm 0.11$ which is, assuming CP conservation, twice the value of the quoted above branching ratio.

NODE=S041Q62;LINKAGE=AU

$\Gamma(D^0 K^*(892)^+)/\Gamma(\overline{D}^0 K^*(892)^+)$ — $\Gamma_{109}/\Gamma_{106}$

NODE=S041P63

VALUE (units 10^{-3})	DOCUMENT ID
$10.2^{+3.2}_{-6.9}$ OUR EVALUATION (Produced by HFLAV)	

→ UNCHECKED ←

$\Gamma(\overline{D}^0 K^+ \pi^+ \pi^-)/\Gamma(\overline{D}^0 \pi^+ \pi^+ \pi^-)$ — $\Gamma_{110}/\Gamma_{116}$

NODE=S041T93

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
9.4±1.3±0.9	AAIJ	12T	LHCB	pp at 7 TeV

$\Gamma(D_{CP(+1)} K^+ \pi^- \pi^+)/\Gamma([K^+ \pi^-]_D K^+ \pi^- \pi^+)$ — $\Gamma_{113}/\Gamma_{111}$

NODE=S041RB5

VALUE	DOCUMENT ID		TECN	COMMENT
1.040±0.064	AAIJ	15BC	LHCB	pp at 7, 8 TeV

$\Gamma([K^- \pi^+]_D K^+ \pi^- \pi^+)/\Gamma([K^+ \pi^-]_D K^+ \pi^- \pi^+)$ — $\Gamma_{112}/\Gamma_{111}$

NODE=S041RB6

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
85^{+36}_{-33}	AAIJ	15BC	LHCB	pp at 7, 8 TeV

$\Gamma(\overline{D}^0 K^+ \overline{K}^0)/\Gamma_{total}$ Γ_{114}/Γ

NODE=S041B64
NODE=S041B64

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
3.73±0.34 OUR AVERAGE				
3.65±0.35±0.04	[1] ADACHI	24L	BEL2	362 fb^{-1}, $e^+ e^- \rightarrow \Upsilon(4S)$
5.4 ±1.6 ±0.1	[2] DRUTSKOY	02	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] ADACHI 24L reports $(3.64 \pm 0.32 \pm 0.16) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \rightarrow \overline{D}^0 K^+ \overline{K}^0)/\Gamma_{total}] \times [B(\Upsilon(4S) \rightarrow B^+ B^-)]$ assuming $B(\Upsilon(4S) \rightarrow B^+ B^-) = (51.6 \pm 1.2) \times 10^{-2}$, which we rescale to our best value $B(\Upsilon(4S) \rightarrow B^+ B^-) = (51.4 \pm 0.6) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041B64;LINKAGE=C

[2] DRUTSKOY 02 reports $(5.5 \pm 1.4 \pm 0.8) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \rightarrow \overline{D}^0 K^+ \overline{K}^0)/\Gamma_{total}] \times [B(\Upsilon(4S) \rightarrow B^+ B^-)]$ assuming $B(\Upsilon(4S) \rightarrow B^+ B^-) = (50 \pm 0) \times 10^{-2}$, which we rescale to our best value $B(\Upsilon(4S) \rightarrow B^+ B^-) = (51.4 \pm 0.6) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041B64;LINKAGE=B

$\Gamma(\overline{D}^0 K^+ \overline{K}^*(892)^0)/\Gamma_{total}$ Γ_{115}/Γ

NODE=S041B66
NODE=S041B66

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
7.2 ±0.5 OUR AVERAGE				
7.19±0.45±0.33	[1] ADACHI	24L	BEL2	$e^+ e^- \rightarrow \Upsilon(4S)$
7.5 ±1.3 ±1.1	[2] DRUTSKOY	02	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Used 362 fb^{-1} Belle II data and $B(\Upsilon(4S) \rightarrow B^0 \overline{B}^0)$=0.484 ± 0.012.

NODE=S041B66;LINKAGE=A

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B66;LINKAGE=EP

$\Gamma(\overline{D}^0 \pi^+ \pi^+ \pi^-)/\Gamma_{total}$ Γ_{116}/Γ

NODE=S041R85
NODE=S041R85

VALUE	DOCUMENT ID		TECN	COMMENT
0.0055±0.0020 OUR FIT Error includes scale factor of 3.6.				
0.0115±0.0029±0.0021	[1] BORTOLETTO	92	CLEO	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] BORTOLETTO 92 assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses Mark III branching fractions for the D.

NODE=S041R85;LINKAGE=B9

$\Gamma(\overline{D}^0 \pi^+ \pi^+ \pi^-)/\Gamma(\overline{D}^0 \pi^+)$ Γ_{116}/Γ_{59}

NODE=S041C66
NODE=S041C66

VALUE	DOCUMENT ID		TECN	COMMENT
1.2 ±0.4 OUR FIT Error includes scale factor of 3.6.				
1.27±0.06±0.11	AAIJ	11E	LHCB	pp at 7 TeV

$\Gamma([K^- \pi^+]_D \pi^+ \pi^- \pi^+)/\Gamma([K^+ \pi^-]_D K^+ \pi^- \pi^+)$ $\Gamma_{117}/\Gamma_{111}$

NODE=S041RB7
NODE=S041RB7

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
42.7±5.6	AAIJ	15BC	LHCB	pp at 7, 8 TeV

$\Gamma(\overline{D}^0 \pi^+ \pi^+ \pi^-$ nonresonant$)/\Gamma_{total}$ Γ_{118}/Γ

NODE=S041R86
NODE=S041R86

VALUE	DOCUMENT ID		TECN	COMMENT
0.0051±0.0034±0.0023	[1] BORTOLETTO	92	CLEO	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] BORTOLETTO 92 assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses Mark III branching fractions for the D.

NODE=S041R86;LINKAGE=B9

$\Gamma(\overline{D}^0 \pi^+ \rho^0)/\Gamma_{total}$ Γ_{119}/Γ

NODE=S041R87
NODE=S041R87

VALUE	DOCUMENT ID		TECN	COMMENT
0.0042±0.0023±0.0020	[1] BORTOLETTO	92	CLEO	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] BORTOLETTO 92 assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses Mark III branching fractions for the D.

NODE=S041R87;LINKAGE=B9

$\Gamma(\overline{D}^0 a_1(1260)^+)/\Gamma_{total}$ Γ_{120}/Γ

NODE=S041R88
NODE=S041R88

VALUE	DOCUMENT ID		TECN	COMMENT
0.0045±0.0019±0.0031	[1] BORTOLETTO	92	CLEO	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] BORTOLETTO 92 assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses Mark III branching fractions for the D.

NODE=S041R88;LINKAGE=B9

$\Gamma(\overline{D}^0 \omega \pi^+)/\Gamma_{total}$ Γ_{121}/Γ

NODE=S041B54
NODE=S041B54

VALUE	DOCUMENT ID		TECN	COMMENT
0.0041±0.0007±0.0006	[1] ALEXANDER	01B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. The signal is consistent with all observed $\omega \pi^+$ having proceeded through the ρ'^+ resonance at mass $1349 \pm 25^{+10}_{-5}$ MeV and width $547 \pm 86^{+46}_{-45}$ MeV.

NODE=S041B54;LINKAGE=AK

$\Gamma(D^*(2010)^-\pi^+\pi^+)/\Gamma_{total}$ Γ_{122}/Γ

NODE=S041R2

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
1.35±0.22 OUR AVERAGE						
1.25±0.08±0.22			[1] ABE	04D	BELL	$e^+e^- \to \Upsilon(4S)$
1.9 ±0.7 ±0.3		14	[2] ALAM	94	CLE2	$e^+e^- \to \Upsilon(4S)$
2.6 ±1.4 ±0.7		11	[3] ALBRECHT	90J	ARG	$e^+e^- \to \Upsilon(4S)$
$2.4\ {}^{+1.7}_{-1.6}\ {}^{+1.0}_{-0.6}$		3	[4] BEBEK	87	CLEO	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<4.	90		[5] BORTOLETTO	92	CLEO	$e^+e^- \to \Upsilon(4S)$
5. ±2. ±3.		7	[6] ALBRECHT	87C	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R2;LINKAGE=AB

[2] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the CLEO II B($D^*(2010)^+ \to D^0\pi^+$) and absolute B($D^0 \to K^-\pi^+$) and the PDG 1992 B($D^0 \to K^-\pi^+\pi^0$)/B($D^0 \to K^-\pi^+$) and B($D^0 \to K^-2\pi^+\pi^-$)/B($D^0 \to K^-\pi^+$). NODE=S041R2;LINKAGE=EF

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses the Mark III branching fractions for the D. NODE=S041R2;LINKAGE=9B

[4] BEBEK 87 value has been updated in BERKELMAN 91 to use same assumptions as noted for BORTOLETTO 92. NODE=S041R2;LINKAGE=A

[5] BORTOLETTO 92 assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses Mark III branching fractions for the D and $D^*(2010)$. The authors also find the product branching fraction into $D^{**}\pi$ followed by $D^{**} \to D^*(2010)\pi$ to be $0.0014^{+0.0008}_{-0.0006} \pm 0.0003$ where D^{**} represents all orbitally excited D mesons. NODE=S041R2;LINKAGE=B9

[6] ALBRECHT 87C use PDG 86 branching ratios for D and $D^*(2010)$ and assume B($\Upsilon(4S) \to B^+B^-$) = 55% and B($\Upsilon(4S) \to B^0\overline{B}^0$) = 45%. Superseded by ALBRECHT 90J. NODE=S041R2;LINKAGE=B

$\Gamma(D^*(2010)^-K^+\pi^+)/\Gamma_{total}$ Γ_{123}/Γ

NODE=S041P42

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
8.2±0.3±1.4	[1] AAIJ	17AR	LHCB	pp at 7 , 8 TeV

[1] The branching fraction of the normalization mode $B^+ \to D^{*-}\pi^+\pi^+$ is rescaled to the updated ratio of $\Upsilon(4S) \to B^+B^-$ to $\Upsilon(4S) \to B^0\overline{B}^0$ decay rates of 1.058 ± 0.024. NODE=S041P42;LINKAGE=A

$\Gamma(D^*(2010)^-K^+\pi^+)/\Gamma(D^*(2010)^-\pi^+\pi^+)$ $\Gamma_{123}/\Gamma_{122}$

NODE=S041P43

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
6.39±0.27±0.48	[1] AAIJ	17AR	LHCB	pp at 7, 8 TeV

[1] Uses $D^{*-} \to \overline{D}^0\pi^-$ and $\overline{D}^0 \to K^+\pi^-$ decays. NODE=S041P43;LINKAGE=A

$\Gamma(\overline{D}_1(2420)^0\pi^+,\ \overline{D}_1^0 \to D^*(2010)^-\pi^+)/\Gamma_{total}$ Γ_{124}/Γ

NODE=S041P97

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
8.42±0.08±1.46	[1] AAIJ	20D	LHCB	pp at 7, 8, 13 TeV

[1] AAIJ 20D used a 4-body amplitude analysis of $B^- \to D^{*+}\pi^-\pi^-$ decays. NODE=S041P97;LINKAGE=A

$\Gamma(\overline{D}_1(2420)^0\pi^+,\ \overline{D}_1^0 \to D^*(2010)^-\pi^+)/\Gamma(\overline{D}^0\pi^+\pi^+\pi^-)$ $\Gamma_{124}/\Gamma_{116}$

NODE=S041C69

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
9.3±1.6±0.9	[1] AAIJ	11E	LHCB	pp at 7 TeV

[1] AAIJ 11E reports $(9.3 \pm 1.6 \pm 0.9) \times 10^{-2}$ from a measurement of [$\Gamma(B^+ \to \overline{D}_1(2420)^0\pi^+,\ \overline{D}_1^0 \to D^*(2010)^-\pi^+)/\Gamma(B^+ \to \overline{D}^0\pi^+\pi^+\pi^-)$] × [B($D^*(2010)^+ \to D^0\pi^+$)] assuming B($D^*(2010)^+ \to D^0\pi^+$) = $(67.7 \pm 0.5) \times 10^{-2}$. NODE=S041C69;LINKAGE=AA

$\Gamma(D^-\pi^+\pi^+)/\Gamma_{total}$ Γ_{125}/Γ

NODE=S041R14

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
1.07±0.05 OUR AVERAGE						
1.08±0.03±0.05			[1] AUBERT	09AB	BABR	$e^+e^- \to \Upsilon(4S)$
1.02±0.04±0.15			[1] ABE	04D	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<1.4	90		[2] ALAM	94	CLE2	$e^+e^- \to \Upsilon(4S)$
<7	90		[3] BORTOLETTO	92	CLEO	$e^+e^- \to \Upsilon(4S)$
$2.5\ {}^{+4.1}_{-2.3}\ {}^{+2.4}_{-0.8}$		1	[4] BEBEK	87	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R14;LINKAGE=EP

[2] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the Mark III B($D^+ \to K^- 2\pi^+$). NODE=S041R14;LINKAGE=CC

[3] BORTOLETTO 92 assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses Mark III branching fractions for the D. The product branching fraction into $D_0^*(2340)\pi$ followed by $D_0^*(2340) \to D\pi$ is < 0.005 at 90%CL and into $D_2^*(2460)$ followed by $D_2^*(2460) \to D\pi$ is < 0.004 at 90%CL. NODE=S041R14;LINKAGE=B9

[4] BEBEK 87 assume the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. B($D^- \to K^+\pi^-\pi^-$) = (9.1 ± 1.3 ± 0.4)% is assumed. NODE=S041R14;LINKAGE=A

$\Gamma(D^- K^+\pi^+)/\Gamma(D^-\pi^+\pi^+)$ — $\Gamma_{126}/\Gamma_{125}$

NODE=S041T99
NODE=S041T99

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
7.20±0.19±0.21	AAIJ	15V	LHCB	pp at 7, 8 TeV

$\Gamma(D_0^*(2300)^0 K^+,\ D_0^{*0} \to D^-\pi^+)/\Gamma_{total}$ — Γ_{127}/Γ

NODE=S041D00
NODE=S041D00

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
6.1±1.9±1.5	[1] AAIJ	15V	LHCB	pp at 7, 8 TeV

[1] Performs the amplitude analysis by fitting the square-Dalitz-plot distribution. NODE=S041D00;LINKAGE=A

$\Gamma(D_2^*(2460)^0 K^+,\ D_2^{*0} \to D^-\pi^+)/\Gamma_{total}$ — Γ_{128}/Γ

NODE=S041D02
NODE=S041D02

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
23.2±1.1±2.0	[1] AAIJ	15V	LHCB	pp at 7, 8 TeV

[1] Performs the amplitude analysis by fitting the square-Dalitz-plot distribution. NODE=S041D02;LINKAGE=A

$\Gamma(D_1^*(2760)^0 K^+,\ D_1^{*0} \to D^-\pi^+)/\Gamma_{total}$ — Γ_{129}/Γ

NODE=S041D01
NODE=S041D01

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
3.6±0.9±0.8	[1] AAIJ	15V	LHCB	pp at 7, 8 TeV

[1] Performs the amplitude analysis by fitting the square-Dalitz-plot distribution. NODE=S041D01;LINKAGE=A

$\Gamma(D^+ K^0)/\Gamma_{total}$ — Γ_{130}/Γ

NODE=S041Q47
NODE=S041Q47

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<2 × 10^{-6}	90	KUMAR	23	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<2.9 \times 10^{-6}$	90	[1] DEL-AMO-SA...	10K	BABR	$e^+e^- \to \Upsilon(4S)$
$<5.0 \times 10^{-6}$	90	[1] AUBERT,B	05E	BABR	Repl. by DEL-AMO-SANCHEZ 10K

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q47;LINKAGE=EP

$\Gamma(D^+ K^+\pi^-)/\Gamma(D^- K^+\pi^+)$ — $\Gamma_{131}/\Gamma_{126}$

NODE=S041P25
NODE=S041P25

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
7.3±1.2±0.7	AAIJ	16M	LHCB	pp at 7, 8 TeV

$\Gamma(D^+\eta)/\Gamma_{total}$ — Γ_{132}/Γ

NODE=S041A72
NODE=S041A72

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.2 × 10^{-5}	90	KUMAR	23	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(D_2^*(2460)^0 K^+,\ D_2^{*0} \to D^+\pi^-)/\Gamma_{total}$ — Γ_{133}/Γ

NODE=S041P26
NODE=S041P26

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<6.3 × 10^{-7}	90	AAIJ	16R	LHCB	pp at 7, 8 TeV

$\Gamma(D^+ K^{*0})/\Gamma_{total}$ — Γ_{134}/Γ

NODE=S041P02
NODE=S041P02

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<4.9 × 10^{-7}	90	AAIJ	16M	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<1.8 \times 10^{-6}$	90	AAIJ	13R	LHCB	Repl. by AAIJ 16M
$<3.0 \times 10^{-6}$	90	[1] DEL-AMO-SA...	10K	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P02;LINKAGE=EP

$\Gamma(D^+\overline{K}^{*0})/\Gamma_{total}$ — Γ_{135}/Γ

NODE=S041C76
NODE=S041C76

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<1.4	90	AAIJ	13R	LHCB	pp at 7 TeV

$\Gamma(\overline{D}^*(2007)^0\pi^+)/\Gamma_{total}$ Γ_{136}/Γ

NODE=S041R15

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
5.17 ±0.15 OUR AVERAGE					
5.35 ±0.04 ±0.22		AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
4.82 ±0.12 ±0.35		[1] KATO	18	BELL	$e^+e^- \to \Upsilon(4S)$
5.52 ±0.17 ±0.42		[2] AUBERT	07H	BABR	$e^+e^- \to \Upsilon(4S)$
5.3 ±0.4 ±0.1		[3,4] AUBERT,BE	06J	BABR	$e^+e^- \to \Upsilon(4S)$
4.34 ±0.47 ±0.18		[5] BRANDENB...	98	CLE2	$e^+e^- \to \Upsilon(4S)$
5.2 ±0.7 ±0.7	71	[6] ALAM	94	CLE2	$e^+e^- \to \Upsilon(4S)$
7.2 ±1.8 ±1.6		[7] BORTOLETTO	92	CLEO	$e^+e^- \to \Upsilon(4S)$
4.0 ±1.4 ±1.2	9	[7] ALBRECHT	90J	ARG	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
4.664±0.029±0.268		[8] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV
2.7 ±4.4		[9] BEBEK	87	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Measures absolute branching fractions using a missing-mass technique. NODE=S041R15;LINKAGE=B

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R15;LINKAGE=EP

[3] AUBERT,BE 06J reports $[\Gamma(B^+ \to \overline{D}^*(2007)^0\pi^+)/\Gamma_{total}]$ / $[B(B^+ \to \overline{D}^0\pi^+)]$ $= 1.14 \pm 0.07 \pm 0.04$ which we multiply by our best value $B(B^+ \to \overline{D}^0\pi^+) = (4.61 \pm 0.10) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R15;LINKAGE=AR

[4] Uses a missing-mass method. Does not depend on D branching fractions or B^+/B^0 production rates. NODE=S041R15;LINKAGE=RT

[5] BRANDENBURG 98 assume equal production of B^+ and B^0 at $\Upsilon(4S)$ and use the D^* reconstruction technique. The first error is their experiment's error and the second error is the systematic error from the PDG 96 value of $B(D^* \to D\pi)$. NODE=S041R15;LINKAGE=BG

[6] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the CLEO II $B(D^*(2007)^0 \to D^0\pi^0)$ and absolute $B(D^0 \to K^-\pi^+)$ and the PDG 1992 $B(D^0 \to K^-\pi^+\pi^0)/B(D^0 \to K^-\pi^+)$ and $B(D^0 \to K^-2\pi^+\pi^-)/B(D^0 \to K^-\pi^+)$. NODE=S041R15;LINKAGE=EB

[7] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses Mark III branching fractions for the D and $D^*(2010)$. NODE=S041R15;LINKAGE=B9

[8] Superseded by AAIJ 21Q. NODE=S041R15;LINKAGE=C

[9] This is a derived branching ratio, using the inclusive pion spectrum and other two-body B decays. BEBEK 87 assume the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. NODE=S041R15;LINKAGE=A

$\Gamma(\overline{D}^*(2007)^0\omega\pi^+)/\Gamma_{total}$ Γ_{139}/Γ

NODE=S041B53

VALUE	DOCUMENT ID		TECN	COMMENT
0.0045±0.0010±0.0007	[1] ALEXANDER	01B	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. The signal is consistent with all observed $\omega\pi^+$ having proceeded through the ρ'^+ resonance at mass $1349 \pm 25^{+10}_{-5}$ MeV and width $547 \pm 86^{+46}_{-45}$ MeV. NODE=S041B53;LINKAGE=AK

$\Gamma(\overline{D}^*(2007)^0\rho^+)/\Gamma_{total}$ Γ_{140}/Γ

NODE=S041S41

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.0098±0.0017 OUR AVERAGE					
0.0098±0.0006±0.0017		[1] CSORNA	03	CLE2	$e^+e^- \to \Upsilon(4S)$
0.010 ±0.006 ±0.004	7	[2] ALBRECHT	90J	ARG	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.0168±0.0021±0.0028	86	[3] ALAM	94	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^0 and B^+ at the $\Upsilon(4S)$ resonance. The second error combines the systematic and theoretical uncertainties in quadrature. CSORNA 03 includes data used in ALAM 94. A full angular fit to three complex helicity amplitudes is performed. NODE=S041S41;LINKAGE=EP

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses Mark III branching fractions for the D and $D^*(2010)$. NODE=S041S41;LINKAGE=B9

[3] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the CLEO II $B(D^*(2007)^0 \to D^0\pi^0)$ and absolute $B(D^0 \to K^-\pi^+)$ and the PDG 1992 $B(D^0 \to K^-\pi^+\pi^0)/B(D^0 \to K^-\pi^+)$ and $B(D^0 \to K^-2\pi^+\pi^-)/B(D^0 \to K^-\pi^+)$. The nonresonant $\pi^+\pi^0$ contribution under the ρ^+ is negligible. NODE=S041S41;LINKAGE=BE

$\Gamma(\overline{D}^*(2007)^0K^+)/\Gamma_{total}$ Γ_{141}/Γ

NODE=S041B48

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
$4.19^{+0.31}_{-0.28}$ OUR AVERAGE				
$4.21^{+0.30}_{-0.26}\pm0.12$	[1] AUBERT	05N	BABR	$e^+e^- \to \Upsilon(4S)$
4.0 ±1.1 ±0.1	[2] ABE	01I	BELL	$e^+e^- \to \Upsilon(4S)$

[1] AUBERT 05N reports $[\Gamma(B^+ \to \overline{D}^*(2007)^0 K^+)/\Gamma_{total}]$ / $[B(B^+ \to \overline{D}^*(2007)^0 \pi^+)]$ $= 0.0813 \pm 0.0040^{+0.0042}_{-0.0031}$ which we multiply by our best value $B(B^+ \to \overline{D}^*(2007)^0 \pi^+) = (5.17 \pm 0.15) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B48;LINKAGE=AU

[2] ABE 01I reports $[\Gamma(B^+ \to \overline{D}^*(2007)^0 K^+)/\Gamma_{total}]$ / $[B(B^+ \to \overline{D}^*(2007)^0 \pi^+)] = 0.078 \pm 0.019 \pm 0.009$ which we multiply by our best value $B(B^+ \to \overline{D}^*(2007)^0 \pi^+) = (5.17 \pm 0.15) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B48;LINKAGE=EB

$\Gamma(\overline{D}^{*0}_{CP(+1)} K^+)/\Gamma_{total}$ — Γ_{142}/Γ

NODE=S041C47
NODE=S041C47

VALUE (units 10^{-4})	*DOCUMENT ID*		*TECN*	*COMMENT*
$2.75 \pm 0.29^{+0.21}_{-0.18}$	[1] AUBERT	08BF	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] AUBERT 08BF reports $[\Gamma(B^+ \to \overline{D}^{*0}_{CP(+1)} K^+)/\Gamma_{total}]$ / $[B(B^+ \to \overline{D}^*(2007)^0 K^+)]$ $= 0.655 \pm 0.065 \pm 0.020$ which we multiply by our best value $B(B^+ \to \overline{D}^*(2007)^0 K^+) = (4.19^{+0.31}_{-0.28}) \times 10^{-4}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C47;LINKAGE=AU

$\Gamma(\overline{D}^*(2007)^0 K^+)/\Gamma(\overline{D}^*(2007)^0 \pi^+)$ — $\Gamma_{141}/\Gamma_{136}$

NODE=S041P52
NODE=S041P52

VALUE (units 10^{-2})	*DOCUMENT ID*		*TECN*	*COMMENT*
$8.51 \pm 0.12 \pm 0.48$	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$7.930 \pm 0.110 \pm 0.560$	[2] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV

[1] Uses semi-inclusive reconstruction of $B^+ \to ([K^+\pi^-]_D \gamma/\pi^0)_{D^*} K^+/\pi^+$. Decays of $D^* \to D\gamma/\pi^0$ are reconstructed without inclusion of π^0 or γ. NODE=S041P52;LINKAGE=A

[2] Superseded by AAIJ 21Q. NODE=S041P52;LINKAGE=B

$\Gamma(\overline{D}^{*0}_{CP(+1)} K^+)/\Gamma(\overline{D}^{*0}_{CP(+1)} \pi^+)$ — $\Gamma_{142}/\Gamma_{137}$

NODE=S041Q71
NODE=S041Q71

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.095 ± 0.017 OUR AVERAGE				
$0.11 \pm 0.02 \pm 0.02$	[1] ABE	06	BELL	$e^+ e^- \to \Upsilon(4S)$
$0.086 \pm 0.021 \pm 0.007$	[2] AUBERT	05N	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Reports a double ratio of $B(B^+ \to D^{*0}_{CP(+1)} K^+)/B(B^+ \to D^{*0}_{CP(+1)} \pi^+)$ and $B(B^+ \to \overline{D}^{*0} K^+)/B(B^+ \to \overline{D}^{*0} \pi^+)$, $1.41 \pm 0.25 \pm 0.06$. We multiply by our best value of $B(B^+ \to \overline{D}^{*0} K^+)/B(B^+ \to \overline{D}^{*0} \pi^+) = 0.080 \pm 0.011$. Our first error is their experiment's error and the second error is systematic error from using our best value. NODE=S041Q71;LINKAGE=AB

[2] Uses $D^{*0} \to D^0 \pi^0$ with D^0 reconstructed in the CP-even eigenstates $K^+ K^-$ and $\pi^+ \pi^-$. NODE=S041Q71;LINKAGE=AU

$\Gamma(\overline{D}^{*0}_{CP(-1)} K^+)/\Gamma_{total}$ — Γ_{143}/Γ

NODE=S041C48
NODE=S041C48

VALUE (units 10^{-4})	*DOCUMENT ID*		*TECN*	*COMMENT*
$2.31 \pm 0.27^{+0.17}_{-0.16}$	[1] AUBERT	08BF	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] AUBERT 08BF reports $[\Gamma(B^+ \to \overline{D}^{*0}_{CP(-1)} K^+)/\Gamma_{total}]$ / $[B(B^+ \to \overline{D}^*(2007)^0 K^+)]$ $= 0.55 \pm 0.06 \pm 0.02$ which we multiply by our best value $B(B^+ \to \overline{D}^*(2007)^0 K^+) = (4.19^{+0.31}_{-0.28}) \times 10^{-4}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C48;LINKAGE=AU

$\Gamma(\overline{D}^{*0}_{CP(-1)} K^+)/\Gamma(D^{*0}_{CP(-1)} \pi^+)$ — $\Gamma_{143}/\Gamma_{138}$

NODE=S041Q81
NODE=S041Q81

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
$0.09 \pm 0.03 \pm 0.01$	[1] ABE	06	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Reports a double ratio of $B(B^+ \to D^{*0}_{CP(-1)} K^+)/B(B^+ \to D^{*0}_{CP(-1)} \pi^+)$ and $B(B^+ \to \overline{D}^{*0} K^+)/B(B^+ \to \overline{D}^{*0} \pi^+)$, $1.15 \pm 0.31 \pm 0.12$. We multiply by our best value of $B(B^+ \to \overline{D}^{*0} K^+)/B(B^+ \to \overline{D}^{*0} \pi^+) = 0.080 \pm 0.011$. Our first error is their experiment's error and the second error is systematic error from using our best value. NODE=S041Q81;LINKAGE=AB

$\Gamma(D^*(2007)^0 K^+)/\Gamma(\overline{D}^*(2007)^0 K^+)$ — $\Gamma_{144}/\Gamma_{141}$

NODE=S041P64
NODE=S041P64

VALUE (units 10^{-2})	*DOCUMENT ID*
$1.08^{+0.27}_{-0.29}$ OUR EVALUATION	(Produced by HFLAV)

→ UNCHECKED ←

$\Gamma(\overline{D}^*(2007)^0 K^*(892)^+)/\Gamma_{total}$ Γ_{145}/Γ

NODE=S041B58

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
8.1±1.4 OUR AVERAGE				
8.3±1.1±1.0	[1] AUBERT	04K	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
7.2±2.2±2.6	[2] MAHAPATRA	02	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B58;LINKAGE=AU

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and an unpolarized final state. NODE=S041B58;LINKAGE=PE

$\Gamma(\overline{D}^*(2007)^0 K^+ \overline{K}^0)/\Gamma_{total}$ Γ_{146}/Γ

NODE=S041B65

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
2.94±0.54±0.20		[1] ADACHI	24L	BEL2	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<10.6	90	[2] DRUTSKOY	02	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Used 362 fb^{-1} Belle II data and B(Υ(4S) $\rightarrow B^0\overline{B}^0$)=0.484 ± 0.012. NODE=S041B65;LINKAGE=A

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B65;LINKAGE=EP

$\Gamma(\overline{D}^*(2007)^0 K^+ \overline{K}^*(892)^0)/\Gamma_{total}$ Γ_{147}/Γ

NODE=S041B67

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
12.3 ±1.4 OUR AVERAGE				
11.93±1.14±0.93	[1] ADACHI	24L	BEL2	$e^+e^- \rightarrow \Upsilon(4S)$
15.3 ±3.1 ±2.9	[2] DRUTSKOY	02	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Used 362 fb^{-1} Belle II data and B(Υ(4S) $\rightarrow B^0\overline{B}^0$)=0.484 ± 0.012. NODE=S041B67;LINKAGE=A

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B67;LINKAGE=EP

$\Gamma(\overline{D}^*(2007)^0 \pi^+\pi^+\pi^-)/\Gamma_{total}$ Γ_{148}/Γ

NODE=S041S92

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
1.03 ±0.12 OUR AVERAGE					
1.055±0.047±0.129		[1] MAJUMDER	04	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
0.94 ±0.20 ±0.17	48	[2,3] ALAM	94	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S92;LINKAGE=EP

[2] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the CLEO II B($D^*(2007)^0 \rightarrow D^0\pi^0$) and absolute B($D^0 \rightarrow K^-\pi^+$) and the PDG 1992 B($D^0 \rightarrow K^-\pi^+\pi^0$)/B($D^0 \rightarrow K^-\pi^+$) and B($D^0 \rightarrow K^-2\pi^+\pi^-$)/B($D^0 \rightarrow K^-\pi^+$). NODE=S041S92;LINKAGE=EB

[3] The three pion mass is required to be between 1.0 and 1.6 GeV consistent with an a_1 meson. (If this channel is dominated by a_1^+, the branching ratio for $\overline{D}^{*0} a_1^+$ is twice that for $\overline{D}^{*0}\pi^+\pi^+\pi^-$.) NODE=S041S92;LINKAGE=EC

$\Gamma(\overline{D}^*(2007)^0 a_1(1260)^+)/\Gamma_{total}$ Γ_{149}/Γ

NODE=S041S96

VALUE	DOCUMENT ID		TECN	COMMENT
0.0188±0.0040±0.0034	[1,2] ALAM	94	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$

[1] ALAM 94 value is twice their $\Gamma(\overline{D}^*(2007)^0\pi^+\pi^+\pi^-)/\Gamma_{total}$ value based on their observation that the three pions are dominantly in the $a_1(1260)$ mass range 1.0 to 1.6 GeV. NODE=S041S96;LINKAGE=A

[2] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the CLEO II B($D^*(2007)^0 \rightarrow D^0\pi^0$) and absolute B($D^0 \rightarrow K^-\pi^+$) and the PDG 1992 B($D^0 \rightarrow K^-\pi^+\pi^0$)/B($D^0 \rightarrow K^-\pi^+$) and B($D^0 \rightarrow K^-2\pi^+\pi^-$)/B($D^0 \rightarrow K^-\pi^+$). NODE=S041S96;LINKAGE=EB

$\Gamma(\overline{D}^*(2007)^0 \pi^-\pi^+\pi^+\pi^0)/\Gamma_{total}$ Γ_{150}/Γ

NODE=S041B52

VALUE	DOCUMENT ID		TECN	COMMENT
0.0180±0.0024±0.0027	[1] ALEXANDER	01B	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. The signal is consistent with all observed $\omega\pi^+$ having proceeded through the ρ'^+ resonance at mass $1349 \pm 25^{+10}_{-5}$ MeV and width $547 \pm 86^{+46}_{-45}$ MeV. NODE=S041B52;LINKAGE=AK

$\Gamma(\overline{D}^{*0} 3\pi^+ 2\pi^-)/\Gamma_{total}$ Γ_{151}/Γ

NODE=S041Q23

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
5.67±0.91±0.85	[1] MAJUMDER	04	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q23;LINKAGE=EP

$\Gamma(D^*(2010)^+\pi^0)/\Gamma_{total}$ — Γ_{152}/Γ

NODE=S041B15
NODE=S041B15

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<3.6 × 10^{-6}		[1] IWABUCHI	08	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<1.7 \times 10^{-4}$	90	[2] BRANDENB...	98	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B15;LINKAGE=EP

[2] BRANDENBURG 98 assume equal production of B^+ and B^0 at $\Upsilon(4S)$ and use the D^* partial reconstruction technique. The first error is their experiment's error and the second error is the systematic error from the PDG 96 value of B($D^* \to D\pi$). NODE=S041B15;LINKAGE=BG

$\Gamma(D^*(2010)^+K^0)/\Gamma_{total}$ — Γ_{153}/Γ

NODE=S041B45
NODE=S041B45

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<9.0 × 10^{-6}	90	[1] AUBERT,B	05E	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<9.5 \times 10^{-5}$	90	[1] GRITSAN	01	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B45;LINKAGE=EP

$\Gamma(D^*(2010)^-\pi^+\pi^+\pi^0)/\Gamma_{total}$ — Γ_{154}/Γ

NODE=S041R12
NODE=S041R12

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.0152±0.0071±0.0001	26	[1] ALBRECHT	90J	ARG	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.043 ±0.013 ±0.026	24	[2] ALBRECHT	87C	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALBRECHT 90J reports $0.018 \pm 0.007 \pm 0.005$ from a measurement of $[\Gamma(B^+ \to D^*(2010)^-\pi^+\pi^+\pi^0)/\Gamma_{total}] \times [B(D^*(2010)^+ \to D^0\pi^+)]$ assuming $B(D^*(2010)^+ \to D^0\pi^+) = 0.57 \pm 0.06$, which we rescale to our best value $B(D^*(2010)^+ \to D^0\pi^+) = (67.7 \pm 0.5) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses Mark III branching fractions for the D. NODE=S041R12;LINKAGE=B9

[2] ALBRECHT 87C use PDG 86 branching ratios for D and $D^*(2010)$ and assume $B(\Upsilon(4S) \to B^+B^-) = 55\%$ and $B(\Upsilon(4S) \to B^0\overline{B}^0) = 45\%$. Superseded by ALBRECHT 90J. NODE=S041R12;LINKAGE=A

$\Gamma(D^*(2010)^-\pi^+\pi^+\pi^+\pi^-)/\Gamma_{total}$ — Γ_{155}/Γ

NODE=S041R64
NODE=S041R64

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
2.56±0.26±0.33		[1] MAJUMDER	04	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<10	90	[2] ALBRECHT	90J	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R64;LINKAGE=EP

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and uses Mark III branching fractions for the D and $D^*(2010)$. NODE=S041R64;LINKAGE=B9

$\Gamma(\overline{D}^{**0}\pi^+)/\Gamma_{total}$ — Γ_{156}/Γ

NODE=S041R03

D^{**0} represents an excited state with mass $2.2 < M < 2.8$ GeV/c^2.

NODE=S041R03
NODE=S041R03

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
5.6±1.2±0.1	[1,2] AUBERT,BE	06J	BABR	$e^+e^- \to \Upsilon(4S)$

[1] AUBERT,BE 06J reports $[\Gamma(B^+ \to \overline{D}^{**0}\pi^+)/\Gamma_{total}] / [B(B^+ \to \overline{D}^0\pi^+)] = 1.22 \pm 0.13 \pm 0.23$ which we multiply by our best value $B(B^+ \to \overline{D}^0\pi^+) = (4.61 \pm 0.10) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R03;LINKAGE=AR

[2] Uses a missing-mass method. Does not depend on D branching fractions or B^+/B^0 production rates. NODE=S041R03;LINKAGE=RT

$\Gamma(\overline{D}_1^*(2420)^0\pi^+)/\Gamma_{total}$ — Γ_{157}/Γ

NODE=S041R93
NODE=S041R93

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.0015±0.0006 OUR AVERAGE	Error includes scale factor of 1.3.				
0.0011±0.0005±0.0002	8	[1] ALAM	94	CLE2	$e^+e^- \to \Upsilon(4S)$
0.0025±0.0007±0.0006		[2] ALBRECHT	94D	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the CLEO II $B(D^*(2010)^+ \to D^0\pi^+)$ and absolute $B(D^0 \to K^-\pi^+)$ and the PDG 1992 $B(D^0 \to K^-\pi^+\pi^0)/B(D^0 \to K^-\pi^+)$ and assuming $B(D_1(2420)^0 \to D^*(2010)^+\pi^-) = 67\%$. NODE=S041R93;LINKAGE=EG

[2] ALBRECHT 94D assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the CLEO II $B(D^*(2010)^+ \to D^0\pi^+)$ assuming $B(D_1(2420)^0 \to D^*(2010)^+\pi^-) = 67\%$. NODE=S041R93;LINKAGE=A

$\Gamma(\overline{D}_1(2420)^0\pi^+ \times B(\overline{D}_1^0 \to \overline{D}^0\pi^+\pi^-))/\Gamma_{total}$ Γ_{158}/Γ

NODE=S041Q82

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
2.5 $^{+1.6}_{-1.4}$ OUR FIT Error includes scale factor of 3.8.			
1.85±0.29$^{+0.35}_{-0.55}$	[1] ABE 05A	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041Q82;LINKAGE=EP

$\Gamma(\overline{D}_1(2420)^0\pi^+ \times B(\overline{D}_1^0 \to \overline{D}^0\pi^+\pi^-))/\Gamma(\overline{D}^0\pi^+\pi^+\pi^-)$ $\Gamma_{158}/\Gamma_{116}$

NODE=S041C67

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
4.6$^{+3.3}_{-2.7}$ OUR FIT Error includes scale factor of 3.9.			
10.3±1.5±0.9	AAIJ 11E	LHCB	pp at 7 TeV

$\Gamma(\overline{D}_1(2420)^0\pi^+ \times B(\overline{D}_1^0 \to \overline{D}^0\pi^+\pi^- \text{ (nonresonant)}))/\Gamma(\overline{D}^0\pi^+\pi^+\pi^-)$ $\Gamma_{159}/\Gamma_{116}$

NODE=S041C68

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
4.0±0.7±0.5	[1] AAIJ 11E	LHCB	pp at 7 TeV

[1] Excludes decays where $\overline{D}_1(2420)^0 \to D*(2010)^-\pi^+$.

NODE=S041C68;LINKAGE=AA

$\Gamma(\overline{D}_1(2430)^0\pi^+,\ \overline{D}_1^0 \to D^*(2010)^-\pi^+)/\Gamma_{total}$ Γ_{160}/Γ

NODE=S041P78

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
3.51±0.06±0.61	[1] AAIJ 20D	LHCB	pp at 7, 8, 13 TeV

[1] AAIJ 20D used a 4-body amplitude analysis of $B^- \to D^{*+}\pi^-\pi^-$ decays.

NODE=S041P78;LINKAGE=A

$\Gamma(\overline{D}_2^*(2462)^0\pi^+,\ \overline{D}_2^{*0} \to D^-\pi^+)/\Gamma_{total}$ Γ_{163}/Γ

NODE=S041Q01

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
3.56±0.24 OUR AVERAGE			
3.62±0.06±0.30	[1] AAIJ 16AH	LHCB	pp at 7, 8 TeV
3.5 ±0.2 ±0.4	[2] AUBERT 09AB	BABR	$e^+e^- \to \Upsilon(4S)$
3.4 ±0.3 ±0.72	[2] ABE 04D	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Measured using a Dalitz plot analysis of $B^- \to D^+\pi^-\pi^-$ decays.
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041Q01;LINKAGE=A
NODE=S041Q01;LINKAGE=EP

$\Gamma(\overline{D}_2^*(2462)^0\pi^+,\ \overline{D}_2^{*0} \to \overline{D}^0\pi^-\pi^+)/\Gamma(\overline{D}^0\pi^+\pi^+\pi^-)$ $\Gamma_{164}/\Gamma_{116}$

NODE=S041C70

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
4.0±1.0±0.4	AAIJ 11E	LHCB	pp at 7 TeV

$\Gamma(\overline{D}_2^*(2462)^0\pi^+,\ \overline{D}_2^{*0} \to \overline{D}^0\pi^-\pi^+ \text{(nonresonant)})/\Gamma(\overline{D}^0\pi^+\pi^+\pi^-)$ $\Gamma_{165}/\Gamma_{116}$

NODE=S041C72

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
<3.0 × 10^{-2}	90	[1] AAIJ 11E	LHCB	pp at 7 TeV

[1] Excludes decays where $\overline{D}_2^*(2462)^0 \to D^*(2010)^-\pi^+$.

NODE=S041C72;LINKAGE=AA

$\Gamma(\overline{D}_2^*(2462)^0\pi^+,\ \overline{D}_2^{*0} \to D^*(2010)^-\pi^+)/\Gamma(\overline{D}^0\pi^+\pi^+\pi^-)$ $\Gamma_{166}/\Gamma_{116}$

NODE=S041C71

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
3.9±1.2±0.4	[1] AAIJ 11E	LHCB	pp at 7 TeV

[1] Uses B($D^*(2010)^+ \to D^0\pi^+$) = (67.7 +- 0.5)%.

NODE=S041C71;LINKAGE=AA

$\Gamma(\overline{D}_0^*(2400)^0\pi^+ \times B(\overline{D}_0^*(2400)^0 \to D^-\pi^+))/\Gamma_{total}$ Γ_{167}/Γ

NODE=S041Q02

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
6.4±1.4 OUR AVERAGE			
6.8±0.3±2.0	[1] AUBERT 09AB	BABR	$e^+e^- \to \Upsilon(4S)$
6.1±0.6±1.8	[1] ABE 04D	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041Q02;LINKAGE=EP

$\Gamma(\overline{D}_1(2421)^0\pi^+,\ \overline{D}_1^0 \to D^{*-}\pi^+)/\Gamma_{total}$ Γ_{168}/Γ

NODE=S041Q03

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
7.4 ±1.0 OUR AVERAGE			
7.95±0.09±1.34	[1] AAIJ 20D	LHCB	pp at 7, 8, 13 TeV
6.8 ±0.7 ±1.3	[2] ABE 04D	BELL	$e^+e^- \to \Upsilon(4S)$

[1] AAIJ 20D used a 4-body amplitude analysis of $B^- \to D^{*+}\pi^-\pi^-$ decays.
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041Q03;LINKAGE=A
NODE=S041Q03;LINKAGE=AB

$\Gamma\big(\overline{D}{}^*_2(2462)^0\pi^+,\ \overline{D}{}^{*0}_2\to D^{*-}\pi^+\big)/\Gamma_{\text{total}}$ Γ_{169}/Γ

NODE=S041Q04
NODE=S041Q04

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
1.98±0.30 OUR AVERAGE				
2.08±0.03±0.37	[1] AAIJ	20D	LHCB	pp at 7, 8, 13 TeV
1.8 ±0.3 ±0.4	[2] ABE	04D	BELL	$e^+e^-\to\ \Upsilon(4S)$

[1] AAIJ 20D used a 4-body amplitude analysis of $B^-\to\ D^{*+}\pi^-\pi^-$ decays. NODE=S041Q04;LINKAGE=A
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q04;LINKAGE=AB

$\Gamma\big(\overline{D}{}'_1(2427)^0\pi^+,\ \overline{D}{}'^0_1\to D^{*-}\pi^+\big)/\Gamma_{\text{total}}$ Γ_{170}/Γ

NODE=S041Q05
NODE=S041Q05

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
3.5 ±0.9 OUR AVERAGE Error includes scale factor of 1.5.				
2.96±0.30±0.63	[1] AAIJ	20D	LHCB	pp at 7, 8, 13 TeV
5.0 ±0.4 ±1.1	[2] ABE	04D	BELL	$e^+e^-\to\ \Upsilon(4S)$

[1] AAIJ 20D used a 4-body amplitude analysis of $B^-\to\ D^{*+}\pi^-\pi^-$ decays. NODE=S041Q05;LINKAGE=A
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q05;LINKAGE=AB

$\Gamma\big(\overline{D}_1(2420)^0\pi^+\times\text{B}(\overline{D}{}^0_1\to\overline{D}{}^{*0}\pi^+\pi^-)\big)/\Gamma_{\text{total}}$ Γ_{171}/Γ

NODE=S041Q83
NODE=S041Q83

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<0.06	90	[1] ABE	05A	BELL	$e^+e^-\to\ \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q83;LINKAGE=EP

$\Gamma\big(\overline{D}{}^*_1(2420)^0\rho^+\big)/\Gamma_{\text{total}}$ Γ_{172}/Γ

NODE=S041R94
NODE=S041R94

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.0014	90	[1] ALAM	94	CLE2	$e^+e^-\to\ \Upsilon(4S)$

[1] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the CLEO II B($D^*(2010)^+\to\ D^0\pi^+$) assuming B($D_1(2420)^0\to\ D^*(2010)^+\pi^-$) = 67%. NODE=S041R94;LINKAGE=EG

$\Gamma\big(\overline{D}{}^*_2(2460)^0\pi^+\big)/\Gamma_{\text{total}}$ Γ_{173}/Γ

NODE=S041R91
NODE=S041R91

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.0013	90	[1] ALAM	94	CLE2	$e^+e^-\to\ \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.0028	90	[2] ALAM	94	CLE2	$e^+e^-\to\ \Upsilon(4S)$
<0.0023	90	[3] ALBRECHT	94D	ARG	$e^+e^-\to\ \Upsilon(4S)$

OCCUR=2

[1] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the Mark III B($D^+\to\ K^-2\pi^+$) and B($D^*_2(2460)^0\to\ D^+\pi^-$) = 30%. NODE=S041R91;LINKAGE=CD
[2] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the Mark III B($D^+\to\ K^-2\pi^+$), the CLEO II B($D^*(2010)^+\to\ D^0\pi^+$) and B($D^*_2(2460)^0\to D^*(2010)^+\pi^-$) = 20%. NODE=S041R91;LINKAGE=CE
[3] ALBRECHT 94D assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the CLEO II B($D^*(2010)^+\to\ D^0\pi^+$) and B($D^*_2(2460)^0\to\ D^*(2010)^+\pi^-$) = 30%. NODE=S041R91;LINKAGE=A

$\Gamma\big(\overline{D}{}^*_2(2460)^0\pi^+\times\text{B}(\overline{D}{}^{*0}_2\to\overline{D}{}^{*0}\pi^+\pi^-)\big)/\Gamma_{\text{total}}$ Γ_{174}/Γ

NODE=S041Q84
NODE=S041Q84

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<0.22	90	[1] ABE	05A	BELL	$e^+e^-\to\ \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q84;LINKAGE=EP

$\Gamma\big(\overline{D}{}^*_2(2460)^0\rho^+\big)/\Gamma_{\text{total}}$ Γ_{180}/Γ

NODE=S041R92
NODE=S041R92

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.0047	90	[1] ALAM	94	CLE2	$e^+e^-\to\ \Upsilon(4S)$
<0.005	90	[2] ALAM	94	CLE2	$e^+e^-\to\ \Upsilon(4S)$

OCCUR=2

[1] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the Mark III B($D^+\to\ K^-2\pi^+$) and B($D^*_2(2460)^0\to\ D^+\pi^-$) = 30%. NODE=S041R92;LINKAGE=CD
[2] ALAM 94 assume equal production of B^+ and B^0 at the $\Upsilon(4S)$ and use the Mark III B($D^+\to\ K^-2\pi^+$), the CLEO II B($D^*(2010)^+\to\ D^0\pi^+$) and B($D^*_2(2460)^0\to D^*(2010)^+\pi^-$) = 20%. NODE=S041R92;LINKAGE=CE

$\Gamma\big(\overline{D}(2550)^0\pi^+,\ \overline{D}{}^0\to D^*(2010)^-\pi^+\big)/\Gamma_{\text{total}}$ Γ_{161}/Γ

NODE=S041P79
NODE=S041P79

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
0.72±0.01±0.14	[1] AAIJ	20D	LHCB	pp at 7, 8, 13 TeV

[1] AAIJ 20D used a 4-body amplitude analysis of $B^-\to\ D^{*+}\pi^-\pi^-$ decays. NODE=S041P79;LINKAGE=A

$\Gamma\big(\overline{D}{}^*_J(2600)^0\pi^+,\ \overline{D}{}^{*0}_J \to D^*(2010)^-\pi^+\big)/\Gamma_{\text{total}}$ Γ_{162}/Γ

NODE=S041P80
NODE=S041P80

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
0.68±0.01±0.13	[1] AAIJ	20D	LHCB	pp at 7, 8, 13 TeV

[1] AAIJ 20D used a 4-body amplitude analysis of $B^- \to D^{*+}\pi^-\pi^-$ decays. NODE=S041P80;LINKAGE=A

$\Gamma\big(\overline{D}{}^*_1(2680)^0\pi^+,\ \overline{D}{}^*_1(2680)^0 \to D^-\pi^+\big)/\Gamma_{\text{total}}$ Γ_{175}/Γ

NODE=S041P38
NODE=S041P38

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
0.84±0.06±0.20	[1] AAIJ	16AH	LHCB	pp at 7, 8 TeV

[1] Measured using a Dalitz plot analysis of $B^+ \to D^-\pi^+\pi^+$ decays. NODE=S041P38;LINKAGE=A

$\Gamma\big(\overline{D}(2740)^0\pi^+,\ \overline{D}{}^0 \to D^*(2010)^-\pi^+\big)/\Gamma_{\text{total}}$ Γ_{176}/Γ

NODE=S041P81
NODE=S041P81

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
0.33±0.02±0.15	[1] AAIJ	20D	LHCB	pp at 7, 8, 13 TeV

[1] AAIJ 20D used a 4-body amplitude analysis of $B^- \to D^{*+}\pi^-\pi^-$ decays. NODE=S041P81;LINKAGE=A

$\Gamma\big(\overline{D}{}^*_3(2750)^0\pi^+,\ \overline{D}{}^{*0}_3 \to D^*(2010)^-\pi^+\big)/\Gamma_{\text{total}}$ Γ_{177}/Γ

NODE=S041P83
NODE=S041P83

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
0.11±0.01±0.03	[1] AAIJ	20D	LHCB	pp at 7, 8, 13 TeV

[1] AAIJ 20D used a 4-body amplitude analysis of $B^- \to D^{*+}\pi^-\pi^-$ decays. NODE=S041P83;LINKAGE=A

$\Gamma\big(\overline{D}{}^*_3(2760)^0\pi^+,\ \overline{D}{}^*_3(2760)^0\pi^+ \to D^-\pi^+\big)/\Gamma_{\text{total}}$ Γ_{178}/Γ

NODE=S041P39
NODE=S041P39

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
1.0±0.1±0.2	[1] AAIJ	16AH	LHCB	pp at 7, 8 TeV

[1] Measured using a Dalitz plot analysis of $B^+ \to D^-\pi^+\pi^+$ decays. NODE=S041P39;LINKAGE=A

$\Gamma\big(\overline{D}{}^*_2(3000)^0\pi^+,\ \overline{D}{}^*_2(3000)^0\pi^+ \to D^-\pi^+\big)/\Gamma_{\text{total}}$ Γ_{179}/Γ

NODE=S041P40
NODE=S041P40

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
2±1±1	[1] AAIJ	16AH	LHCB	pp at 7, 8 TeV

[1] Measured using a Dalitz plot analysis of $B^+ \to D^-\pi^+\pi^+$ decays. NODE=S041P40;LINKAGE=A

$\Gamma\big(\overline{D}{}^0 D_s^+\big)/\Gamma_{\text{total}}$ Γ_{181}/Γ

NODE=S041R39
NODE=S041R39

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
9.3±0.6 OUR AVERAGE				
9.5±0.6±0.5	[1] ADACHI	24L	BEL2	$e^+e^- \to \Upsilon(4S)$
8.6±0.2±1.1	[2] AAIJ	13AP	LHCB	pp at 7 TeV
9.5±2.0±0.8	[3] AUBERT	06N	BABR	$e^+e^- \to \Upsilon(4S)$
9.8±2.6±0.9	[4] GIBAUT	96	CLE2	$e^+e^- \to \Upsilon(4S)$
14 ±8 ±1	[5] ALBRECHT	92G	ARG	$e^+e^- \to \Upsilon(4S)$
13 ±6 ±1	[6] BORTOLETTO	90	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Used 362 fb^{-1} Belle II data and B($\Upsilon(4S) \to B^0\overline{B}{}^0$)=0.484 ± 0.012. NODE=S041R39;LINKAGE=B

[2] Uses B($B^0 \to D^- D_s^+$) = (7.2 ± 0.8) × 10^{-3}. NODE=S041R39;LINKAGE=AI

[3] AUBERT 06N reports (0.92 ± 0.14 ± 0.18) × 10^{-2} from a measurement of [$\Gamma(B^+ \to \overline{D}{}^0 D_s^+)/\Gamma_{\text{total}}$] × [B($D_s^+ \to \phi\pi^+$)] assuming B($D_s^+ \to \phi\pi^+$) = 0.0462 ± 0.0062, which we rescale to our best value B($D_s^+ \to \phi\pi^+$) = (4.5 ± 0.4) × 10^{-2}. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R39;LINKAGE=AN

[4] GIBAUT 96 reports 0.0126 ± 0.0022 ± 0.0025 from a measurement of [$\Gamma(B^+ \to \overline{D}{}^0 D_s^+)/\Gamma_{\text{total}}$] × [B($D_s^+ \to \phi\pi^+$)] assuming B($D_s^+ \to \phi\pi^+$) = 0.035, which we rescale to our best value B($D_s^+ \to \phi\pi^+$) = (4.5 ± 0.4) × 10^{-2}. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R39;LINKAGE=Z9

[5] ALBRECHT 92G reports 0.024 ± 0.012 ± 0.004 from a measurement of [$\Gamma(B^+ \to \overline{D}{}^0 D_s^+)/\Gamma_{\text{total}}$] × [B($D_s^+ \to \phi\pi^+$)] assuming B($D_s^+ \to \phi\pi^+$) = 0.027, which we rescale to our best value B($D_s^+ \to \phi\pi^+$) = (4.5 ± 0.4) × 10^{-2}. Our first error is their experiment's error and our second error is the systematic error from using our best value. Assumes PDG 1990 D^0 branching ratios, e.g., B($D^0 \to K^-\pi^+$) = 3.71 ± 0.25%. NODE=S041R39;LINKAGE=CA

[6] BORTOLETTO 90 reports 0.029 ± 0.013 from a measurement of [$\Gamma(B^+ \to \overline{D}{}^0 D_s^+)/\Gamma_{\text{total}}$] × [B($D_s^+ \to \phi\pi^+$)] assuming B($D_s^+ \to \phi\pi^+$) = 0.02, which we rescale to our best value B($D_s^+ \to \phi\pi^+$) = (4.5 ± 0.4) × 10^{-2}. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R39;LINKAGE=A

$\Gamma(\overline{D}^0 D^+)/\Gamma(\overline{D}^0 D_s^+)$ $\Gamma_{218}/\Gamma_{181}$

NODE=S041D16
NODE=S041D16

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
7.25±0.09±0.09	AAIJ	23AX	LHCB	pp at 7, 8, 13 TeV

$\Gamma(D_{s0}^*(2317)^+ \overline{D}^0,\ D_{s0}^{*+} \to D_s^+ \pi^0)/\Gamma_{\text{total}}$ Γ_{182}/Γ

NODE=S041C4
NODE=S041C4

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.79^{+0.15}_{-0.13}}$ **OUR AVERAGE**				
$0.79^{+0.17}_{-0.16}\pm0.01$	[1,2] CHOI	15A	BELL	$e^+e^- \to \Upsilon(4S)$
$0.80^{+0.35}_{-0.21}\pm0.07$	[2,3] AUBERT,B	04S	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.65^{+0.26}_{-0.24}\pm0.06$	[2,4] KROKOVNY	03B	BELL	Repl. by CHOI 15A

[1] CHOI 15A reports $(8.0^{+1.3}_{-1.2} \pm 1.1 \pm 0.4) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to D_{s0}^*(2317)^+ \overline{D}^0,\ D_{s0}^{*+} \to D_s^+ \pi^0)/\Gamma_{\text{total}}] \times [B(D_s^+ \to K^+K^-\pi^+)]$ assuming $B(D_s^+ \to K^+K^-\pi^+) = (5.39 \pm 0.21) \times 10^{-2}$, which we rescale to our best value $B(D_s^+ \to K^+K^-\pi^+) = (5.45 \pm 0.08) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C4;LINKAGE=B

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C4;LINKAGE=KR

[3] AUBERT,B 04S reports $(1.0 \pm 0.3^{+0.4}_{-0.2}) \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_{s0}^*(2317)^+ \overline{D}^0,\ D_{s0}^{*+} \to D_s^+ \pi^0)/\Gamma_{\text{total}}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.036 \pm 0.009$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = (4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C4;LINKAGE=KT

[4] KROKOVNY 03B reports $(0.81^{+0.30}_{-0.27} \pm 0.24) \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_{s0}^*(2317)^+ \overline{D}^0,\ D_{s0}^{*+} \to D_s^+ \pi^0)/\Gamma_{\text{total}}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.036 \pm 0.009$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = (4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C4;LINKAGE=TB

$\Gamma(D_{s0}(2317)^+ \overline{D}^0 \times B(D_{s0}(2317)^+ \to D_s^{*+}\gamma))/\Gamma_{\text{total}}$ Γ_{183}/Γ

NODE=S041Q40
NODE=S041Q40

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<0.76	90	[1] KROKOVNY	03B	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q40;LINKAGE=KR

$\Gamma(D_{s0}(2317)^+ \overline{D}^*(2007)^0 \times B(D_{s0}(2317)^+ \to D_s^+\pi^0))/\Gamma_{\text{total}}$ Γ_{184}/Γ

NODE=S041Q19
NODE=S041Q19

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.9\pm0.6^{+0.4}_{-0.3}}$	[1] AUBERT,B	04S	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q19;LINKAGE=AU

$\Gamma(D_{sJ}(2457)^+ \overline{D}^0)/\Gamma_{\text{total}}$ Γ_{185}/Γ

NODE=S041C5
NODE=S041C5

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
$\mathbf{3.1^{+1.0}_{-0.9}}$ **OUR AVERAGE**				
$4.3\pm1.6\pm1.3$	[1] AUBERT	06N	BABR	$e^+e^- \to \Upsilon(4S)$
$4.6^{+1.8}_{-1.6}\pm1.0$	[2,3] AUBERT,B	04S	BABR	$e^+e^- \to \Upsilon(4S)$
$2.1^{+1.1}_{-0.9}\pm0.5$	[2,4] KROKOVNY	03B	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Uses a missing-mass method in the events that one of the B mesons is fully reconstructed. NODE=S041C5;LINKAGE=AN

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C5;LINKAGE=EP

[3] AUBERT,B 04S reports $[\Gamma(B^+ \to D_{sJ}(2457)^+ \overline{D}^0)/\Gamma_{\text{total}}] \times [B(D_{s1}(2460)^+ \to D_s^{*+}\pi^0)] = (2.2^{+0.8}_{-0.7} \pm 0.3) \times 10^{-3}$ which we divide by our best value $B(D_{s1}(2460)^+ \to D_s^{*+}\pi^0) = (48 \pm 11) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C5;LINKAGE=KT

[4] KROKOVNY 03B reports $[\Gamma(B^+ \to D_{sJ}(2457)^+ \overline{D}^0)/\Gamma_{\text{total}}] \times [B(D_{s1}(2460)^+ \to D_s^{*+}\pi^0)] = (1.0^{+0.5}_{-0.4} \pm 0.1) \times 10^{-3}$ which we divide by our best value $B(D_{s1}(2460)^+ \to D_s^{*+}\pi^0) = (48 \pm 11) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C5;LINKAGE=KU

$\Gamma\big(D_{sJ}(2457)^+ \overline{D}^0 \times B(D_{sJ}(2457)^+ \to D_s^+ \gamma)\big)/\Gamma_{total}$ Γ_{186}/Γ

NODE=S041Q21
NODE=S041Q21

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
$0.46^{+0.13}_{-0.11}$ OUR AVERAGE				
$0.48^{+0.19}_{-0.13}\pm0.04$	[1,2] AUBERT,B	04S	BABR	$e^+e^- \to \Upsilon(4S)$
$0.45^{+0.15}_{-0.14}\pm0.04$	[1,3] KROKOVNY	03B	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q21;LINKAGE=KR

[2] AUBERT,B 04S reports $(0.6 \pm 0.2^{+0.2}_{-0.1}) \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_{sJ}(2457)^+ \overline{D}^0 \times B(D_{sJ}(2457)^+ \to D_s^+ \gamma))/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.036 \pm 0.009$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = (4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041Q21;LINKAGE=KU

[3] KROKOVNY 03B reports $(0.56^{+0.16}_{-0.15} \pm 0.17) \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_{sJ}(2457)^+ \overline{D}^0 \times B(D_{sJ}(2457)^+ \to D_s^+ \gamma))/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.036 \pm 0.009$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = (4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041Q21;LINKAGE=KT

$\Gamma\big(D_{sJ}(2457)^+ \overline{D}^0 \times B(D_{sJ}(2457)^+ \to D_s^+ \pi^+\pi^-)\big)/\Gamma_{total}$ Γ_{187}/Γ

NODE=S041Q41
NODE=S041Q41

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<0.22	90	[1] KROKOVNY	03B	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q41;LINKAGE=KR

$\Gamma\big(D_{sJ}(2457)^+ \overline{D}^0 \times B(D_{sJ}(2457)^+ \to D_s^+ \pi^0)\big)/\Gamma_{total}$ Γ_{188}/Γ

NODE=S041Q42
NODE=S041Q42

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<0.27	90	[1] KROKOVNY	03B	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q42;LINKAGE=KR

$\Gamma\big(D_{sJ}(2457)^+ \overline{D}^0 \times B(D_{sJ}(2457)^+ \to D_s^{*+} \gamma)\big)/\Gamma_{total}$ Γ_{189}/Γ

NODE=S041Q43
NODE=S041Q43

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<0.98	90	[1] KROKOVNY	03B	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q43;LINKAGE=KR

$\Gamma\big(D_{sJ}(2457)^+ \overline{D}^*(2007)^0\big)/\Gamma_{total}$ Γ_{190}/Γ

NODE=S041Q20
NODE=S041Q20

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
12.0±3.0 OUR AVERAGE				
11.2±2.6±2.0	[1] AUBERT	06N	BABR	$e^+e^- \to \Upsilon(4S)$
$16\ ^{+8}_{-6}\ \pm4$	[2,3] AUBERT,B	04S	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Uses a missing-mass method in the events that one of the B mesons is fully reconstructed. NODE=S041Q20;LINKAGE=AN

[2] AUBERT,B 04S reports $[\Gamma(B^+ \to D_{sJ}(2457)^+ \overline{D}^*(2007)^0)/\Gamma_{total}] \times [B(D_{s1}(2460)^+ \to D_s^{*+}\pi^0)] = (7.6 \pm 1.7^{+3.2}_{-2.4}) \times 10^{-3}$ which we divide by our best value $B(D_{s1}(2460)^+ \to D_s^{*+}\pi^0) = (48 \pm 11) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041Q20;LINKAGE=AU

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q20;LINKAGE=EP

$\Gamma\big(D_{sJ}(2457)^+ \overline{D}^*(2007)^0 \times B(D_{sJ}(2457)^+ \to D_s^+ \gamma)\big)/\Gamma_{total}$ Γ_{191}/Γ

NODE=S041Q22
NODE=S041Q22

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
$1.4\pm0.4^{+0.6}_{-0.4}$	[1] AUBERT,B	04S	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q22;LINKAGE=AU

$\Gamma\big(\overline{D}^0 D_{s1}(2536)^+ \times B(D_{s1}(2536)^+ \to D^*(2007)^0 K^+)\big)/\Gamma_{total}$ Γ_{193}/Γ

NODE=S041C41
NODE=S041C41

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
2.16±0.52±0.45		[1] AUBERT	08B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2	90	AUBERT	03X	BABR	Repl. by AUBERT 08B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C41;LINKAGE=EP

$\Gamma(\overline{D}^0 D_{s1}(2536)^+ \times B(D_{s1}(2536)^+ \to D^*(2007)^0 K^+ + D^*(2010)^+ K^0))/\Gamma_{total}$ Γ_{192}/Γ

NODE=S041C63
NODE=S041C63

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
3.97±0.85±0.56	[1,2] AUSHEV 11	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Uses $\Gamma(D^*(2007)^0 \to D^0\pi^0)$ / $\Gamma(D^*(2007)^0 \to D^0\gamma) = 1.74 \pm 0.13$ and $\Gamma(D_{s1}(2536)^+ \to D^*(2007)^0 K^+)$ / $\Gamma(D_{s1}(2536)^+ \to D^*(2010)^+ K^0) = 1.36 \pm 0.2$. NODE=S041C63;LINKAGE=AU

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C63;LINKAGE=EP

$\Gamma(\overline{D}^*(2007)^0 D_{s1}(2536)^+ \times B(D_{s1}(2536)^+ \to D^*(2007)^0 K^+))/\Gamma_{total}$ Γ_{194}/Γ

NODE=S041C42
NODE=S041C42

VALUE (units 10^{-4})	CL%	DOCUMENT ID	TECN	COMMENT
5.46±1.17±1.04		[1] AUBERT 08B	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<7	90	AUBERT 03X	BABR	Repl. by AUBERT 08B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C42;LINKAGE=EP

$\Gamma(\overline{D}^0 D_{s1}(2536)^+ \times B(D_{s1}(2536)^+ \to D^{*+} K^0))/\Gamma_{total}$ Γ_{195}/Γ

NODE=S041B01
NODE=S041B01

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
2.30±0.98±0.43	[1] AUBERT 08B	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B01;LINKAGE=EP

$\Gamma(\overline{D}^0 D_{sJ}(2700)^+ \times B(D_{sJ}(2700)^+ \to D^0 K^+))/\Gamma_{total}$ Γ_{196}/Γ

NODE=S041C03
NODE=S041C03

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
5.6 ±1.8 OUR AVERAGE	Error includes scale factor of 1.7.		
5.02±0.71±0.93	[1] LEES 15C	BABR	$e^+ e^- \to \Upsilon(4S)$
$11.3 \pm 2.2\ ^{+1.4}_{-2.8}$	[1] BRODZICKA 08	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C03;LINKAGE=EP

$\Gamma(\overline{D}^{*0} D_{s1}(2536)^+,\ D_{s1}^+ \to D^{*+} K^0)/\Gamma_{total}$ Γ_{197}/Γ

NODE=S041B02
NODE=S041B02

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
3.92±2.46±0.83	[1] AUBERT 08B	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B02;LINKAGE=EP

$\Gamma(\overline{D}^0 D_{sJ}(2573)^+,\ D_{sJ}^+ \to D^0 K^+)/\Gamma_{total}$ Γ_{198}/Γ

NODE=S041C86
NODE=S041C86

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
0.08±0.14±0.05	[1] LEES 15C	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C86;LINKAGE=EP

$\Gamma(\overline{D}^{*0} D_{sJ}(2573),\ D_{sJ}^+ \to D^0 K^+)/\Gamma_{total}$ Γ_{199}/Γ

NODE=S041C43
NODE=S041C43

VALUE (units 10^{-4})	CL%	DOCUMENT ID	TECN	COMMENT
<2	90	AUBERT 03X	BABR	$e^+ e^- \to \Upsilon(4S)$

$\Gamma(\overline{D}^*(2007)^0 D_{sJ}(2573),\ D_{sJ}^+ \to D^0 K^+)/\Gamma_{total}$ Γ_{200}/Γ

NODE=S041C44
NODE=S041C44

VALUE (units 10^{-4})	CL%	DOCUMENT ID	TECN	COMMENT
<5	90	AUBERT 03X	BABR	$e^+ e^- \to \Upsilon(4S)$

$\Gamma(\overline{D}^0 D_s^{*+})/\Gamma_{total}$ Γ_{201}/Γ

NODE=S041S49
NODE=S041S49

VALUE	DOCUMENT ID	TECN	COMMENT
0.0076±0.0016 OUR AVERAGE			
0.0079±0.0017±0.0007	[1] AUBERT 06N	BABR	$e^+ e^- \to \Upsilon(4S)$
0.0068±0.0025±0.0006	[2] GIBAUT 96	CLE2	$e^+ e^- \to \Upsilon(4S)$
0.010 ±0.007 ±0.001	[3] ALBRECHT 92G	ARG	$e^+ e^- \to \Upsilon(4S)$

[1] AUBERT 06N reports $(0.77 \pm 0.15 \pm 0.13) \times 10^{-2}$ from a measurement of $[\Gamma(B^+ \to \overline{D}^0 D_s^{*+})/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.0462 \pm 0.0062$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = (4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041S49;LINKAGE=AN

[2] GIBAUT 96 reports $0.0087 \pm 0.0027 \pm 0.0017$ from a measurement of $[\Gamma(B^+ \to \overline{D}^0 D_s^{*+})/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.035$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = (4.5 \pm 0.4) \times 10^{-2}$. Our first error is NODE=S041S49;LINKAGE=Z9

their experiment's error and our second error is the systematic error from using our best value.

[3] ALBRECHT 92G reports 0.016 ± 0.012 ± 0.003 from a measurement of [$\Gamma(B^+ \to \overline{D}^0 D_s^{*+})/\Gamma_{total}$] × [B($D_s^+ \to \phi\pi^+$)] assuming B($D_s^+ \to \phi\pi^+$) = 0.027, which we rescale to our best value B($D_s^+ \to \phi\pi^+$) = $(4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. Assumes PDG 1990 D^0 branching ratios, e.g., B($D^0 \to K^-\pi^+$) = 3.71 ± 0.25%. NODE=S041S49;LINKAGE=CA

$\Gamma(\overline{D}^*(2007)^0 D_s^+,\ \overline{D}^{*0} \to D^-\pi^+)/\Gamma(D^- D_s^+\pi^+)$ $\Gamma_{204}/\Gamma_{202}$

NODE=S041A95
NODE=S041A95

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
14.7±1.3±2.7	[1] AAIJ	23B	LHCB	pp at 7, 8, 13 TeV

[1] Uses simultaneous fits of $\overline{B}^0 \to \overline{D}^0 D_s^+ \pi^-$ and $B^+ \to D^- D_s^+ \pi^+$ amplitudes assuming isospin symmetry. NODE=S041A95;LINKAGE=A

$\Gamma(\overline{D}^*(2007)^0 D_s^+)/\Gamma_{total}$ Γ_{203}/Γ

NODE=S041S50
NODE=S041S50

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
7.0±1.0 OUR AVERAGE				
6.5±1.0±0.6	[1] ADACHI	24L	BEL2	$e^+e^- \to \Upsilon(4S)$
7.8±1.8±0.7	[2] AUBERT	06N	BABR	$e^+e^- \to \Upsilon(4S)$
11 ±4 ±1	[3] GIBAUT	96	CLE2	$e^+e^- \to \Upsilon(4S)$
8 ±6 ±1	[4] ALBRECHT	92G	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Used 362 fb^{-1} Belle II data and B($\Upsilon(4S) \to B^0\overline{B}^0$)=0.484 ± 0.012. NODE=S041S50;LINKAGE=A

[2] AUBERT 06N reports $(0.76 \pm 0.15 \pm 0.13) \times 10^{-2}$ from a measurement of [$\Gamma(B^+ \to \overline{D}^*(2007)^0 D_s^+)/\Gamma_{total}$] × [B($D_s^+ \to \phi\pi^+$)] assuming B($D_s^+ \to \phi\pi^+$) = 0.0462 ± 0.0062, which we rescale to our best value B($D_s^+ \to \phi\pi^+$) = $(4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041S50;LINKAGE=AN

[3] GIBAUT 96 reports 0.0140 ± 0.0043 ± 0.0035 from a measurement of [$\Gamma(B^+ \to \overline{D}^*(2007)^0 D_s^+)/\Gamma_{total}$] × [B($D_s^+ \to \phi\pi^+$)] assuming B($D_s^+ \to \phi\pi^+$) = 0.035, which we rescale to our best value B($D_s^+ \to \phi\pi^+$) = $(4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041S50;LINKAGE=Z9

[4] ALBRECHT 92G reports 0.013 ± 0.009 ± 0.002 from a measurement of [$\Gamma(B^+ \to \overline{D}^*(2007)^0 D_s^+)/\Gamma_{total}$] × [B($D_s^+ \to \phi\pi^+$)] assuming B($D_s^+ \to \phi\pi^+$) = 0.027, which we rescale to our best value B($D_s^+ \to \phi\pi^+$) = $(4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. Assumes PDG 1990 D^0 and $D^*(2007)^0$ branching ratios, e.g., B($D^0 \to K^-\pi^+$) = 3.71 ± 0.25% and B($D^*(2007)^0 \to D^0\pi^0$) = 55 ± 6%. NODE=S041S50;LINKAGE=CA

$\Gamma(\overline{D}^*(2007)^0 D_s^{*+})/\Gamma_{total}$ Γ_{205}/Γ

NODE=S041S51
NODE=S041S51

VALUE	DOCUMENT ID		TECN	COMMENT
0.0171±0.0024 OUR AVERAGE				
0.0167±0.0019±0.0015	[1] AUBERT	06N	BABR	$e^+e^- \to \Upsilon(4S)$
0.024 ±0.009 ±0.002	[2] GIBAUT	96	CLE2	$e^+e^- \to \Upsilon(4S)$
0.019 ±0.010 ±0.002	[3] ALBRECHT	92G	ARG	$e^+e^- \to \Upsilon(4S)$

[1] AUBERT 06N reports $(1.62 \pm 0.22 \pm 0.18) \times 10^{-2}$ from a measurement of [$\Gamma(B^+ \to \overline{D}^*(2007)^0 D_s^{*+})/\Gamma_{total}$] × [B($D_s^+ \to \phi\pi^+$)] assuming B($D_s^+ \to \phi\pi^+$) = 0.0462 ± 0.0062, which we rescale to our best value B($D_s^+ \to \phi\pi^+$) = $(4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041S51;LINKAGE=AN

[2] GIBAUT 96 reports 0.0310 ± 0.0088 ± 0.0065 from a measurement of [$\Gamma(B^+ \to \overline{D}^*(2007)^0 D_s^{*+})/\Gamma_{total}$] × [B($D_s^+ \to \phi\pi^+$)] assuming B($D_s^+ \to \phi\pi^+$) = 0.035, which we rescale to our best value B($D_s^+ \to \phi\pi^+$) = $(4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041S51;LINKAGE=Z9

[3] ALBRECHT 92G reports 0.031 ± 0.016 ± 0.005 from a measurement of [$\Gamma(B^+ \to \overline{D}^*(2007)^0 D_s^{*+})/\Gamma_{total}$] × [B($D_s^+ \to \phi\pi^+$)] assuming B($D_s^+ \to \phi\pi^+$) = 0.027, which we rescale to our best value B($D_s^+ \to \phi\pi^+$) = $(4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. Assumes PDG 1990 D^0 and $D^*(2007)^0$ branching ratios, e.g., B($D^0 \to K^-\pi^+$) = 3.71 ± 0.25% and B($D^*(2007)^0 \to D^0\pi^0$) = 55 ± 6%. NODE=S041S51;LINKAGE=CA

$\Gamma\big(\overline{D}{}^*_2(2460)^0 D_s^+,\ \overline{D}{}^{*0}_2 \to D^- \pi^+\big)/\Gamma\big(D^- D_s^+ \pi^+\big)$ $\Gamma_{206}/\Gamma_{202}$

NODE=S041A96

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
22.35±0.91±0.71	[1] AAIJ	23B	LHCB	pp at 7, 8, 13 TeV

[1] Uses simultaneous fits of $\overline{B}{}^0 \to \overline{D}{}^0 D_s^+ \pi^-$ and $B^+ \to D^- D_s^+ \pi^+$ amplitudes assuming isospin symmetry.

NODE=S041A96;LINKAGE=A

$\Gamma\big(\overline{D}{}^*_1(2600)^0 D_s^+,\ \overline{D}{}^{*0}_1 \to D^- \pi^+\big)/\Gamma\big(D^- D_s^+ \pi^+\big)$ $\Gamma_{209}/\Gamma_{202}$

NODE=S041A97

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
1.37±0.42±0.62	[1] AAIJ	23B	LHCB	pp at 7, 8, 13 TeV

[1] Uses simultaneous fits of $\overline{B}{}^0 \to \overline{D}{}^0 D_s^+ \pi^-$ and $B^+ \to D^- D_s^+ \pi^+$ amplitudes assuming isospin symmetry.

NODE=S041A97;LINKAGE=A

$\Gamma\big(\overline{D}{}^*_3(2750)^0 D_s^+,\ \overline{D}{}^{*0}_3 \to D^- \pi^+\big)/\Gamma\big(D^- D_s^+ \pi^+\big)$ $\Gamma_{210}/\Gamma_{202}$

NODE=S041A98

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
0.31±0.15±0.17	[1] AAIJ	23B	LHCB	pp at 7, 8, 13 TeV

[1] Uses simultaneous fits of $\overline{B}{}^0 \to \overline{D}{}^0 D_s^+ \pi^-$ and $B^+ \to D^- D_s^+ \pi^+$ amplitudes assuming isospin symmetry.

NODE=S041A98;LINKAGE=A

$\Gamma\big(\overline{D}{}^*_1(2760)^0 D_s^+,\ \overline{D}{}^{*0}_1 \to D^- \pi^+\big)/\Gamma\big(D^- D_s^+ \pi^+\big)$ $\Gamma_{211}/\Gamma_{202}$

NODE=S041A99

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
0.28±0.26±1.53	[1] AAIJ	23B	LHCB	pp at 7, 8, 13 TeV

[1] Uses simultaneous fits of $\overline{B}{}^0 \to \overline{D}{}^0 D_s^+ \pi^-$ and $B^+ \to D^- D_s^+ \pi^+$ amplitudes assuming isospin symmetry.

NODE=S041A99;LINKAGE=A

$\Gamma\big(\overline{D}{}^*_J(3000)^0 D_s^+,\ \overline{D}{}^{*0}_J \to D^- \pi^+\big)/\Gamma\big(D^- D_s^+ \pi^+\big)$ $\Gamma_{212}/\Gamma_{202}$

NODE=S041C00

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
0.45±0.16±0.37	[1] AAIJ	23B	LHCB	pp at 7, 8, 13 TeV

[1] Uses simultaneous fits of $\overline{B}{}^0 \to \overline{D}{}^0 D_s^+ \pi^-$ and $B^+ \to D^- D_s^+ \pi^+$ amplitudes assuming isospin symmetry.

NODE=S041C00;LINKAGE=A

$\Gamma\big(T^*_{cs0}(2900)^{++} D^-,\ T^{*++}_{cs0} \to D_s^+ \pi^+\big)/\Gamma\big(D^- D_s^+ \pi^+\big)$ $\Gamma_{213}/\Gamma_{202}$

NODE=S041C27

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
2.25±0.67±0.77	[1] AAIJ	23B	LHCB	pp at 7, 8, 13 TeV

[1] Uses simultaneous fits of $\overline{B}{}^0 \to \overline{D}{}^0 D_s^+ \pi^-$ and $B^+ \to D^- D_s^+ \pi^+$ amplitudes assuming isospin symmetry.

NODE=S041C27;LINKAGE=A

$\Gamma\big(D_s^{(*)+} \overline{D}{}^{**0}\big)/\Gamma_{total}$ Γ_{214}/Γ

NODE=S041B39

VALUE	DOCUMENT ID		TECN	COMMENT
(2.73±0.93±0.68) × 10^{-2}	[1] AHMED	00B	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] AHMED 00B reports their experiment's uncertainties ($\pm 0.78 \pm 0.48 \pm 0.68$)%, where the first error is statistical, the second is systematic, and the third is the uncertainty in the $D_s \to \phi\pi$ branching fraction. We combine the first two in quadrature.

NODE=S041B39;LINKAGE=AH

$\Gamma\big(\overline{D}{}^*(2007)^0 D^*(2010)^+\big)/\Gamma_{total}$ Γ_{215}/Γ

NODE=S041B34

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
8.1±1.2±1.2		[1] AUBERT,B	06A	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<110	90	BARATE	98Q	ALEP	$e^+ e^- \to Z$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B34;LINKAGE=EP

$\big[\Gamma\big(\overline{D}{}^0 D^*(2010)^+\big) + \Gamma\big(\overline{D}{}^*(2007)^0 D^+\big)\big]/\Gamma_{total}$ Γ_{216}/Γ

NODE=S041B35

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<130	90	BARATE	98Q	ALEP	$e^+ e^- \to Z$

$\Gamma\big(\overline{D}{}^0 D^*(2010)^+\big)/\Gamma_{total}$ Γ_{217}/Γ

NODE=S041Q74

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
3.9 ±0.5 OUR AVERAGE				
3.6 ±0.5 ±0.4	[1] AUBERT,B	06A	BABR	$e^+ e^- \to \Upsilon(4S)$
4.57±0.71±0.56	[1] MAJUMDER	05	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041Q74;LINKAGE=EP

$\Gamma(\overline{D}^0 D^+)/\Gamma_{total}$ — Γ_{218}/Γ

NODE=S041B36

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
3.8 ±0.4 OUR AVERAGE					
3.85±0.31±0.38		[1] ADACHI	08	BELL	$e^+e^- \to \Upsilon(4S)$
3.8 ±0.6 ±0.5		[1] AUBERT,B	06A	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
4.83±0.78±0.58		[1] MAJUMDER	05	BELL	Repl. by ADACHI 08
<67	90	BARATE	98Q	ALEP	$e^+e^- \to Z$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B36;LINKAGE=EP

$\Gamma(\overline{D}^0 D^*(2010)^+)/\Gamma(\overline{D}^0 D^+)$ — $\Gamma_{217}/\Gamma_{218}$

NODE=S041D17

VALUE	DOCUMENT ID		TECN	COMMENT
0.271±0.007±0.005	AAIJ	23AX	LHCB	pp at 7, 8, 13 TeV

$\Gamma(\overline{D}^0 D^+ K^0)/\Gamma_{total}$ — Γ_{219}/Γ

NODE=S041C28

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
1.55±0.17±0.13		[1] DEL-AMO-SA...	11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.8	90	[1] AUBERT	03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C28;LINKAGE=EP

$\Gamma(D^+ \overline{D}^*(2007)^0)/\Gamma_{total}$ — Γ_{220}/Γ

NODE=S041R49

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
6.3±1.4±1.0	[1] AUBERT,B	06A	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R49;LINKAGE=EP

$\Gamma(\overline{D}^*(2007)^0 D^+ K^0)/\Gamma_{total}$ — Γ_{221}/Γ

NODE=S041C29

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
2.06±0.38±0.30		[1] DEL-AMO-SA...	11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<6.1	90	[1] AUBERT	03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C29;LINKAGE=EP

$\Gamma(\overline{D}^0 D^*(2010)^+ K^0)/\Gamma_{total}$ — Γ_{222}/Γ

NODE=S041C30

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
3.81±0.31±0.23	[1] DEL-AMO-SA...	11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$5.2\ ^{+1.0}_{-0.9}\ \pm0.7$	[1] AUBERT	03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C30;LINKAGE=EP

$\Gamma(\overline{D}^*(2007)^0 D^*(2010)^+ K^0)/\Gamma_{total}$ — Γ_{223}/Γ

NODE=S041C31

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
9.17±0.83±0.90	[1] DEL-AMO-SA...	11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$7.8\ ^{+2.3}_{-2.1}\ \pm1.4$	[1] AUBERT	03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C31;LINKAGE=EP

$\Gamma(\overline{D}^0 D^0 K^+)/\Gamma_{total}$ — Γ_{224}/Γ

NODE=S041C32

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
1.45±0.33 OUR AVERAGE Error includes scale factor of 2.6.				
1.31±0.07±0.12	[1] DEL-AMO-SA...	11B	BABR	$e^+e^- \to \Upsilon(4S)$
$2.22\pm0.22^{+0.26}_{-0.24}$	[1] BRODZICKA	08	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1.17±0.21±0.15	[1] CHISTOV	04	BELL	Repl. by BRODZICKA 08
1.9 ±0.3 ±0.3	[1] AUBERT	03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C32;LINKAGE=EP

$\Gamma(\overline{D}^*(2007)^0 D^0 K^+)/\Gamma_{total}$ — Γ_{225}/Γ

NODE=S041C33
NODE=S041C33

VALUE (units 10^{-3})	CL%	DOCUMENT ID	TECN	COMMENT
2.26±0.16±0.17		[1] DEL-AMO-SA..11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<3.8	90	[1] AUBERT 03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C33;LINKAGE=EP

$\Gamma(\overline{D}^0 D^*(2007)^0 K^+)/\Gamma_{total}$ — Γ_{226}/Γ

NODE=S041C34
NODE=S041C34

VALUE (units 10^{-3})	DOCUMENT ID	TECN	COMMENT
6.32±0.19±0.45	[1] DEL-AMO-SA..11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
4.7 ±0.7 ±0.7	[1] AUBERT 03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C34;LINKAGE=EP

$\Gamma(\overline{D}^*(2007)^0 D^*(2007)^0 K^+)/\Gamma_{total}$ — Γ_{227}/Γ

NODE=S041C35
NODE=S041C35

VALUE (units 10^{-3})	DOCUMENT ID	TECN	COMMENT
11.23±0.36±1.26	[1] DEL-AMO-SA..11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$5.3\ ^{+1.1}_{-1.0}\ \pm 1.2$	[1] AUBERT 03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C35;LINKAGE=EP

$\Gamma(D^- D^+ K^+)/\Gamma_{total}$ — Γ_{228}/Γ

NODE=S041C36
NODE=S041C36

VALUE (units 10^{-3})	CL%	DOCUMENT ID	TECN	COMMENT
0.22±0.05±0.05		[1] DEL-AMO-SA..11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<0.90	90	[1] CHISTOV 04	BELL	$e^+e^- \to \Upsilon(4S)$
<0.4	90	[1] AUBERT 03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C36;LINKAGE=EP

$\Gamma(T^*_{cs0}(2870)^0 D^+,\ T^{*0}_{cs0} \to D^- K^+)/\Gamma(D^- D^+ K^+)$ — $\Gamma_{229}/\Gamma_{228}$

NODE=S041A26
NODE=S041A26

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
5.6±1.4±0.5	[1] AAIJ 20AI	LHCB	pp at 7, 8, 13 TeV

[1] Measured in Dalitz plot analysis of $B^+ \to D^- D^+ K^+$ decays.

NODE=S041A26;LINKAGE=A

$\Gamma(T^*_{cs1}(2900)^0 D^+,\ T^{*0}_{cs1} \to D^- K^+)/\Gamma(D^- D^+ K^+)$ — $\Gamma_{230}/\Gamma_{228}$

NODE=S041A27
NODE=S041A27

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
30.6±2.4±2.1	[1] AAIJ 20AI	LHCB	pp at 7, 8, 13 TeV

[1] Measured in Dalitz plot analysis of $B^+ \to D^- D^+ K^+$ decays.

NODE=S041A27;LINKAGE=A

$\Gamma(D^- D^+ K^+ \text{nonresonant})/\Gamma(D^- D^+ K^+)$ — $\Gamma_{231}/\Gamma_{228}$

NODE=S041A28
NODE=S041A28

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
24.2±2.2±0.5	[1] AAIJ 20AI	LHCB	pp at 7, 8, 13 TeV

[1] Measured in Dalitz plot analysis of $B^+ \to D^- D^+ K^+$ decays.

NODE=S041A28;LINKAGE=A

$\Gamma(D^- D^*(2010)^+ K^+)/\Gamma_{total}$ — Γ_{232}/Γ

NODE=S041C37
NODE=S041C37

VALUE (units 10^{-3})	CL%	DOCUMENT ID	TECN	COMMENT
0.63±0.09±0.06		[1] DEL-AMO-SA..11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<0.7	90	[1] AUBERT 03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C37;LINKAGE=EP

$\Gamma(D^- D^*(2010)^+ K^+)/\Gamma(\overline{D}^0 D^0 K^+)$ — $\Gamma_{232}/\Gamma_{224}$

NODE=S041A29
NODE=S041A29

VALUE	DOCUMENT ID	TECN	COMMENT
0.517±0.015±0.017	[1] AAIJ 20AN	LHCB	pp at 7, 8, 13 TeV

[1] Uses $D^+ \to K^- \pi^+ \pi^+$, $D^0 \to K^- \pi^+$ and $D^0 \to K^- \pi^+ \pi^+ \pi^-$ decays.

NODE=S041A29;LINKAGE=A

$\Gamma(D^*(2010)^- D^+ K^+)/\Gamma_{total}$ — Γ_{233}/Γ

NODE=S041C38
NODE=S041C38

VALUE (units 10^{-3})	DOCUMENT ID	TECN	COMMENT
0.60±0.10±0.08	[1] DEL-AMO-SA...11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
1.5 ±0.3 ±0.2	[1] AUBERT 03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C38;LINKAGE=EP

$\Gamma(D^*(2010)^- D^+ K^+)/\Gamma(\overline{D}^0 D^0 K^+)$ — $\Gamma_{233}/\Gamma_{224}$

NODE=S041A30
NODE=S041A30

VALUE	DOCUMENT ID	TECN	COMMENT
0.577±0.016±0.018	[1] AAIJ 20AN	LHCB	pp at 7, 8, 13 TeV

[1] Uses $D^+ \to K^-\pi^+\pi^+$, $D^0 \to K^-\pi^+$ and $D^0 \to K^-\pi^+\pi^+\pi^-$ decays.

NODE=S041A30;LINKAGE=A

$\Gamma(D^- D^*(2010)^+ K^+)/\Gamma(D^*(2010)^- D^+ K^+)$ — $\Gamma_{232}/\Gamma_{233}$

NODE=S041A31
NODE=S041A31

VALUE	DOCUMENT ID	TECN	COMMENT
0.907±0.033±0.014	[1] AAIJ 20AN	LHCB	pp at 7, 8, 13 TeV

[1] Uses $D^+ \to K^-\pi^+\pi^+$, $D^0 \to K^-\pi^+$ and $D^0 \to K^-\pi^+\pi^+\pi^-$ decays.

NODE=S041A31;LINKAGE=A

$\Gamma(\mathrm{EFF}\,K+, \mathrm{EFF} \to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{234}/Γ

NODE=S041D36
NODE=S041D36

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$\mathbf{1.48^{+0.32}_{-0.16}{}^{+0.26}_{-0.32}}$	AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

$\Gamma(\eta_c(3945) K^+,\ \eta_c \to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{235}/Γ

NODE=S041D37
NODE=S041D37

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$\mathbf{0.46^{+0.08}_{-0.14}{}^{+0.26}_{-0.10}}$	AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

$\Gamma(h_c(4000) K^+,\ h_c \to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{237}/Γ

NODE=S041D39
NODE=S041D39

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$\mathbf{0.70^{+0.14}_{-0.10}{}^{+0.21}_{-0.12}}$	AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

$\Gamma(\chi_{c2}(3930) K^+,\ \chi_{c2} \to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{236}/Γ

NODE=S041D38
NODE=S041D38

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$\mathbf{0.24\pm0.06^{+0.08}_{-0.16}}$	AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

$\Gamma(\chi_{c1}(4010) K^+,\ \chi_{c1} \to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{238}/Γ

NODE=S041D40
NODE=S041D40

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$\mathbf{1.38^{+0.22}_{-0.12}{}^{+0.22}_{-0.25}}$	AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

$\Gamma(\psi(4040) K^+,\ \psi \to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{239}/Γ

NODE=S041D41
NODE=S041D41

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$\mathbf{0.38^{+0.08}_{-0.06}\pm0.07}$	AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

$\Gamma(h_c(4300) K^+,\ h_c \to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{240}/Γ

NODE=S041D42
NODE=S041D42

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$\mathbf{0.16^{+0.02}_{-0.06}{}^{+0.04}_{-0.03}}$	AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

$\Gamma(T^*_{\overline{c}s0}(2870)^0 K^+,\ T^{*0}_{\overline{c}s0} \to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{241}/Γ

NODE=S041D43
NODE=S041D43

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$\mathbf{0.45^{+0.06}_{-0.08}{}^{+0.10}_{-0.11}}$	AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

$\Gamma(T^*_{\overline{c}s1}(2900)^0 K^+,\ T^{*0}_{\overline{c}s1} \to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{242}/Γ

NODE=S041D44
NODE=S041D44

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$\mathbf{0.38^{+0.07}_{-0.10}{}^{+0.16}_{-0.12}}$	AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

$\Gamma(\mathrm{NR}K^+,\ \mathrm{NR}\to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{243}/Γ

NODE=S041D45
NODE=S041D45

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$2.78^{+0.32+0.37}_{-0.08-0.42}$	[1] AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

[1] The NR_{1--} line shape is described by $f_R(m) = 1$.

NODE=S041D45;LINKAGE=A

$\Gamma(\mathrm{NR}K^+,\ \mathrm{NR}\to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{244}/Γ

NODE=S041D46
NODE=S041D46

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$0.16^{+0.08+0.10}_{-0.02-0.08}$	[1] AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

[1] The NR_{0--} line shape is described by $f_R(m) = 1$.

NODE=S041D46;LINKAGE=A

$\Gamma(\mathrm{NR}K^+,\ \mathrm{NR}\to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{245}/Γ

NODE=S041D47
NODE=S041D47

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$2.42^{+0.26+0.53}_{-0.20-0.40}$	[1] AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

[1] Only the S-wave component is considered, and the line shape is described by $f_R(m) = 1$.

NODE=S041D47;LINKAGE=A

$\Gamma(\mathrm{NR}K^+,\ \mathrm{NR}\to D^*(2010)^\mp D^\pm)/\Gamma_{total}$ — Γ_{246}/Γ

NODE=S041D48
NODE=S041D48

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$2.18^{+0.46+0.48}_{-0.16-0.49}$	[1] AAIJ 24AB	LHCB	pp at 7, 8, and 13 TeV

[1] The NR_{0-+} line shapes is described by $f_R(m) = e^{(\alpha+\beta i)/(m^2-m_0^2)}$ with $m_0 = 4.35$ GeV. The parameters α and β are determined from the fit to the data.

NODE=S041D48;LINKAGE=A

$\Gamma(D^*(2010)^- D^*(2010)^+ K^+)/\Gamma_{total}$ — Γ_{247}/Γ

NODE=S041C39
NODE=S041C39

VALUE (units 10^{-3})	CL%	DOCUMENT ID	TECN	COMMENT
1.32±0.13±0.12		[1] DEL-AMO-SA..11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<1.8	90	[1] AUBERT 03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C39;LINKAGE=EP

$\Gamma((\overline{D}+\overline{D}^*)(D+D^*)K)/\Gamma_{total}$ — Γ_{248}/Γ

NODE=S041C40
NODE=S041C40

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
4.05±0.11±0.28	[1] DEL-AMO-SA..11B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
3.5 ±0.3 ±0.5	[1] AUBERT 03X	BABR	Repl. by DEL-AMO-SANCHEZ 11B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C40;LINKAGE=EP

$\Gamma(D_s^- D_s^+ K^+)/\Gamma(D^- D^+ K^+)$ — $\Gamma_{249}/\Gamma_{228}$

NODE=S041A94
NODE=S041A94

VALUE	DOCUMENT ID	TECN	COMMENT
0.525±0.033±0.027±0.034	[1] AAIJ 23AI	LHCB	pp at 7, 8, 13 TeV

[1] AAIJ 23AI report that the last error is due to the uncertainties on the branching fractions of the $D_s^\pm \to K^\mp K^\pm \pi^\pm$ and $D^\pm \to K^\mp \pi^\pm \pi^\pm$ decays.

NODE=S041A94;LINKAGE=A

$\Gamma(D_s^+\pi^0)/\Gamma_{total}$ — Γ_{250}/Γ

NODE=S041S83
NODE=S041S83

VALUE (units 10^{-5})	CL%	DOCUMENT ID	TECN	COMMENT
$1.6^{+0.6}_{-0.5}\pm0.1$		[1] AUBERT 07M	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<16	90	[2] ALEXANDER 93B	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] AUBERT 07M reports $[\Gamma(B^+ \to D_s^+\pi^0)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)] = (7.0^{+2.4+0.6}_{-2.1-0.8}) \times 10^{-7}$ which we divide by our best value $B(D_s^+ \to \phi\pi^+) = (4.5 \pm 0.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041S83;LINKAGE=AU

[2] ALEXANDER 93B reports $< 2.0 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to D_s^+\pi^0)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S83;LINKAGE=XB

$\left[\Gamma(D_s^+ \pi^0) + \Gamma(D_s^{*+} \pi^0)\right]/\Gamma_{\text{total}}$ $(\Gamma_{250}+\Gamma_{251})/\Gamma$

NODE=S041S62
NODE=S041S62

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
$<5 \times 10^{-4}$	90	[1] ALBRECHT 93E	ARG	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] ALBRECHT 93E reports $< 0.9 \times 10^{-3}$ from a measurement of $[\left[\Gamma(B^+ \rightarrow D_s^+ \pi^0) + \Gamma(B^+ \rightarrow D_s^{*+} \pi^0)\right]/\Gamma_{\text{total}}] \times [B(D_s^+ \rightarrow \phi\pi^+)]$ assuming $B(D_s^+ \rightarrow \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \rightarrow \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S62;LINKAGE=CA

$\Gamma(D_s^{*+} \pi^0)/\Gamma_{\text{total}}$ Γ_{251}/Γ

NODE=S041S84
NODE=S041S84

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
$<2.6 \times 10^{-4}$	90	[1] ALEXANDER 93B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] ALEXANDER 93B reports $< 3.2 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \rightarrow D_s^{*+} \pi^0)/\Gamma_{\text{total}}] \times [B(D_s^+ \rightarrow \phi\pi^+)]$ assuming $B(D_s^+ \rightarrow \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \rightarrow \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S84;LINKAGE=XB

$\Gamma(D_s^+ \eta)/\Gamma_{\text{total}}$ Γ_{252}/Γ

NODE=S041S85
NODE=S041S85

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
$<1.4 \times 10^{-5}$	90	KUMAR 23	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$<4 \times 10^{-4}$	90	[1] ALEXANDER 93B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] ALEXANDER 93B reports $< 4.6 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \rightarrow D_s^+ \eta)/\Gamma_{\text{total}}] \times [B(D_s^+ \rightarrow \phi\pi^+)]$ assuming $B(D_s^+ \rightarrow \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \rightarrow \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S85;LINKAGE=XB

$\Gamma(D_s^{*+} \eta)/\Gamma_{\text{total}}$ Γ_{253}/Γ

NODE=S041S86
NODE=S041S86

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
$<1.7 \times 10^{-5}$	90	KUMAR 23	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$<6 \times 10^{-4}$	90	[1] ALEXANDER 93B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] ALEXANDER 93B reports $< 7.5 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \rightarrow D_s^{*+} \eta)/\Gamma_{\text{total}}] \times [B(D_s^+ \rightarrow \phi\pi^+)]$ assuming $B(D_s^+ \rightarrow \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \rightarrow \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S86;LINKAGE=XB

$\Gamma(D_s^+ \rho^0)/\Gamma_{\text{total}}$ Γ_{254}/Γ

NODE=S041S87
NODE=S041S87

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
$<3.0 \times 10^{-4}$	90	[1] ALEXANDER 93B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] ALEXANDER 93B reports $< 3.7 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \rightarrow D_s^+ \rho^0)/\Gamma_{\text{total}}] \times [B(D_s^+ \rightarrow \phi\pi^+)]$ assuming $B(D_s^+ \rightarrow \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \rightarrow \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S87;LINKAGE=XB

$\left[\Gamma(D_s^+ \rho^0) + \Gamma(D_s^+ \overline{K}^*(892)^0)\right]/\Gamma_{\text{total}}$ $(\Gamma_{254}+\Gamma_{265})/\Gamma$

NODE=S041S60
NODE=S041S60

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
$<2.0 \times 10^{-3}$	90	[1] ALBRECHT 93E	ARG	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] ALBRECHT 93E reports $< 3.4 \times 10^{-3}$ from a measurement of $[\left[\Gamma(B^+ \rightarrow D_s^+ \rho^0) + \Gamma(B^+ \rightarrow D_s^+ \overline{K}^*(892)^0)\right]/\Gamma_{\text{total}}] \times [B(D_s^+ \rightarrow \phi\pi^+)]$ assuming $B(D_s^+ \rightarrow \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \rightarrow \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S60;LINKAGE=CA

$\Gamma(D_s^{*+} \rho^0)/\Gamma_{\text{total}}$ Γ_{255}/Γ

NODE=S041S88
NODE=S041S88

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
$<4 \times 10^{-4}$	90	[1] ALEXANDER 93B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] ALEXANDER 93B reports $< 4.8 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \rightarrow D_s^{*+} \rho^0)/\Gamma_{\text{total}}] \times [B(D_s^+ \rightarrow \phi\pi^+)]$ assuming $B(D_s^+ \rightarrow \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \rightarrow \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S88;LINKAGE=XB

$\left[\Gamma(D_s^{*+}\rho^0) + \Gamma(D_s^{*+}\overline{K}^*(892)^0)\right]/\Gamma_{total}$ $(\Gamma_{255}+\Gamma_{267})/\Gamma$

NODE=S041S61
NODE=S041S61

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.2 × 10^{-3}	90	[1] ALBRECHT	93E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALBRECHT 93E reports $< 2.0 \times 10^{-3}$ from a measurement of $[\left[\Gamma(B^+ \to D_s^{*+}\rho^0) + \Gamma(B^+ \to D_s^{*+}\overline{K}^*(892)^0)\right]/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S61;LINKAGE=CA

$\Gamma(D_s^+\omega)/\Gamma_{total}$ Γ_{256}/Γ

NODE=S041S63
NODE=S041S63

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<4 × 10^{-4}	90	[1] ALEXANDER	93B	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.0 × 10^{-3}	90	[2] ALBRECHT	93E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALEXANDER 93B reports $< 4.8 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to D_s^+\omega)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S63;LINKAGE=XB

[2] ALBRECHT 93E reports $< 3.4 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_s^+\omega)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S63;LINKAGE=CA

$\Gamma(D_s^{*+}\omega)/\Gamma_{total}$ Γ_{257}/Γ

NODE=S041S64
NODE=S041S64

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<6 × 10^{-4}	90	[1] ALEXANDER	93B	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1.1 × 10^{-3}	90	[2] ALBRECHT	93E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALEXANDER 93B reports $< 6.8 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to D_s^{*+}\omega)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S64;LINKAGE=XB

[2] ALBRECHT 93E reports $< 1.9 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_s^{*+}\omega)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S64;LINKAGE=CA

$\Gamma(D_s^+ a_1(1260)^0)/\Gamma_{total}$ Γ_{258}/Γ

NODE=S041S65
NODE=S041S65

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.8 × 10^{-3}	90	[1] ALBRECHT	93E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALBRECHT 93E reports $< 3.0 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_s^+ a_1(1260)^0)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S65;LINKAGE=CA

$\Gamma(D_s^{*+} a_1(1260)^0)/\Gamma_{total}$ Γ_{259}/Γ

NODE=S041S66
NODE=S041S66

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.3 × 10^{-3}	90	[1] ALBRECHT	93E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALBRECHT 93E reports $< 2.2 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_s^{*+} a_1(1260)^0)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$.

NODE=S041S66;LINKAGE=CA

$\Gamma(D_s^+ K^+ K^-)/\Gamma(\overline{D}^0 D_s^+)$ $\Gamma_{260}/\Gamma_{181}$

NODE=S041P49
NODE=S041P49

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
8.0±0.9±0.1	[1] AAIJ	18B	LHCB	pp at 7, 8, 13 TeV

[1] AAIJ 18B reports $[\Gamma(B^+ \to D_s^+ K^+ K^-)/\Gamma(B^+ \to \overline{D}^0 D_s^+)] / [B(D^0 \to K^+ K^-)] = 0.197 \pm 0.015 \pm 0.017$ which we multiply by our best value $B(D^0 \to K^+ K^-) = (4.08 \pm 0.06) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041P49;LINKAGE=A

$\Gamma(D_s^+ \phi)/\Gamma_{total}$ Γ_{261}/Γ

NODE=S041S67
NODE=S041S67

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
< 0.42	90	[1] AAIJ	18B	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$1.7\ ^{+1.2}_{-0.7} \pm 0.1$		[2] AAIJ	13R	LHCB	Repl. by AAIJ 18B
< 1.9	90	[3] AUBERT	06F	BABR	$e^+ e^- \to \Upsilon(4S)$
<1000	90	[4] ALBRECHT	93E	ARG	$e^+ e^- \to \Upsilon(4S)$
< 260	90	[5] ALEXANDER	93B	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] AAIJ 18B uses $B^+ \to D_s^+ \overline{D}^0$ decays for normalization. NODE=S041S67;LINKAGE=A

[2] AAIJ 13R reports $(1.87^{+1.25}_{-0.73} \pm 0.19 \pm 0.32) \times 10^{-6}$ from a measurement of $[\Gamma(B^+ \to D_s^+ \phi)/\Gamma_{total}]$ / $[B(B^+ \to \overline{D}^0 D_s^+)]$ assuming $B(B^+ \to \overline{D}^0 D_s^+) = (10.0 \pm 1.7) \times 10^{-3}$, which we rescale to our best value $B(B^+ \to \overline{D}^0 D_s^+) = (9.3 \pm 0.6) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041S67;LINKAGE=AA

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S67;LINKAGE=EP

[4] ALBRECHT 93E reports $< 1.7 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_s^+ \phi)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S67;LINKAGE=CA

[5] ALEXANDER 93B reports $< 3.1 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to D_s^+ \phi)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S67;LINKAGE=XB

$\Gamma(D_s^{*+} \phi)/\Gamma_{total}$ Γ_{262}/Γ

NODE=S041S68
NODE=S041S68

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.2 \times 10^{-5}$	90	[1] AUBERT	06F	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<1.3 \times 10^{-3}$	90	[2] ALBRECHT	93E	ARG	$e^+ e^- \to \Upsilon(4S)$
$<3.5 \times 10^{-4}$	90	[3] ALEXANDER	93B	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S68;LINKAGE=EP

[2] ALBRECHT 93E reports $< 2.1 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_s^{*+} \phi)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S68;LINKAGE=CA

[3] ALEXANDER 93B reports $< 4.2 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to D_s^{*+} \phi)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S68;LINKAGE=XB

$\Gamma(D_s^+ \overline{K}^0)/\Gamma_{total}$ Γ_{263}/Γ

NODE=S041S69
NODE=S041S69

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<3 \times 10^{-6}$	90	KUMAR	23	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<1.5 \times 10^{-3}$	90	[1] ALBRECHT	93E	ARG	$e^+ e^- \to \Upsilon(4S)$
$<8 \times 10^{-4}$	90	[2] ALEXANDER	93B	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] ALBRECHT 93E reports $< 2.5 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_s^+ \overline{K}^0)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S69;LINKAGE=CA

[2] ALEXANDER 93B reports $< 10.3 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to D_s^+ \overline{K}^0)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S69;LINKAGE=XB

$\Gamma(D_s^{*+} \overline{K}^0)/\Gamma_{total}$ Γ_{264}/Γ

NODE=S041S70
NODE=S041S70

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<6 \times 10^{-6}$	90	KUMAR	23	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<1.9 \times 10^{-3}$	90	[1] ALBRECHT	93E	ARG	$e^+ e^- \to \Upsilon(4S)$
$<9 \times 10^{-4}$	90	[2] ALEXANDER	93B	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] ALBRECHT 93E reports $< 3.1 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_s^{*+} \overline{K}^0)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S70;LINKAGE=CA

[2] ALEXANDER 93B reports $< 10.9 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to D_s^{*+} \overline{K}^0)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S70;LINKAGE=XB

$\Gamma(D_s^+ \overline{K}^*(892)^0)/\Gamma_{total}$ — Γ_{265}/Γ

NODE=S041S89
NODE=S041S89

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<4.4 × 10^{-6}	90	AAIJ	13R	LHCB	pp at 7 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<4 × 10^{-4}	90	[1] ALEXANDER	93B	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] ALEXANDER 93B reports $< 4.4 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to D_s^+ \overline{K}^*(892)^0)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S89;LINKAGE=XB

$\Gamma(D_s^+ K^{*0})/\Gamma_{total}$ — Γ_{266}/Γ

NODE=S041C77
NODE=S041C77

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<3.5	90	AAIJ	13R	LHCB	pp at 7 TeV

$\Gamma(D_s^{*+} \overline{K}^*(892)^0)/\Gamma_{total}$ — Γ_{267}/Γ

NODE=S041S90
NODE=S041S90

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<3.5 × 10^{-4}	90	[1] ALEXANDER	93B	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] ALEXANDER 93B reports $< 4.3 \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to D_s^{*+} \overline{K}^*(892)^0)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.037$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S90;LINKAGE=XB

$\Gamma(D_s^- \pi^+ K^+)/\Gamma_{total}$ — Γ_{268}/Γ

NODE=S041S71
NODE=S041S71

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
1.80±0.22 OUR AVERAGE					
$1.71^{+0.08}_{-0.07}\pm0.25$		[1] WIECHCZYN...	09	BELL	$e^+e^- \to \Upsilon(4S)$
2.02±0.13±0.38		[1] AUBERT	08G	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<7	90	[2] ALBRECHT	93E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S71;LINKAGE=EP

[2] ALBRECHT 93E reports $< 1.1 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_s^- \pi^+ K^+)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S71;LINKAGE=CA

$\Gamma(D_s^{*-} \pi^+ K^+)/\Gamma_{total}$ — Γ_{269}/Γ

NODE=S041S72
NODE=S041S72

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
1.45±0.24 OUR AVERAGE					
$1.31^{+0.13}_{-0.12}\pm0.28$		[1] WIECHCZYN...	09	BELL	$e^+e^- \to \Upsilon(4S)$
1.67±0.16±0.35		[1] AUBERT	08G	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<10	90	[2] ALBRECHT	93E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S72;LINKAGE=EP

[2] ALBRECHT 93E reports $< 1.6 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_s^{*-} \pi^+ K^+)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S72;LINKAGE=CA

$\Gamma(D_s^- \pi^+ K^*(892)^+)/\Gamma_{total}$ — Γ_{270}/Γ

NODE=S041S73
NODE=S041S73

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<5 × 10^{-3}	90	[1] ALBRECHT	93E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALBRECHT 93E reports $< 8.6 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to D_s^- \pi^+ K^*(892)^+)/\Gamma_{total}] \times [B(D_s^+ \to \phi\pi^+)]$ assuming $B(D_s^+ \to \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \to \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S73;LINKAGE=CA

$\Gamma(D_s^{*-}\pi^+ K^*(892)^+)/\Gamma_{total}$ — Γ_{271}/Γ

NODE=S041S74

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
$<7 \times 10^{-3}$	90	[1] ALBRECHT 93E	ARG	$e^+e^- \rightarrow \Upsilon(4S)$

[1] ALBRECHT 93E reports $< 1.1 \times 10^{-2}$ from a measurement of $[\Gamma(B^+ \rightarrow D_s^{*-}\pi^+ K^*(892)^+)/\Gamma_{total}] \times [B(D_s^+ \rightarrow \phi\pi^+)]$ assuming $B(D_s^+ \rightarrow \phi\pi^+) = 0.027$, which we rescale to our best value $B(D_s^+ \rightarrow \phi\pi^+) = 4.5 \times 10^{-2}$. NODE=S041S74;LINKAGE=CA

$\Gamma(D_s^- K^+ K^+)/\Gamma_{total}$ — Γ_{272}/Γ

NODE=S041C10

VALUE (units 10^{-5})	DOCUMENT ID	TECN	COMMENT
0.97±0.21 OUR AVERAGE			
0.93±0.22±0.10	[1] WIECHCZYN...15	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
1.1 ±0.4 ±0.2	[1] AUBERT 08G	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C10;LINKAGE=EP

$\Gamma(D_s^- K^+ K^+)/\Gamma(D_s^- \pi^+ K^+)$ — $\Gamma_{272}/\Gamma_{268}$

NODE=S041C84

VALUE	DOCUMENT ID	TECN	COMMENT
0.054±0.013±0.006	WIECHCZYN...15	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

$\Gamma(D_s^{*-} K^+ K^+)/\Gamma_{total}$ — Γ_{273}/Γ

NODE=S041C12

VALUE (units 10^{-4})	CL%	DOCUMENT ID	TECN	COMMENT
<0.15	90	[1] AUBERT 08G	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C12;LINKAGE=EP

$\Gamma(\eta_c K^+)/\Gamma_{total}$ — Γ_{274}/Γ

NODE=S041B40

VALUE (units 10^{-3})	DOCUMENT ID	TECN	COMMENT
1.20±0.08 OUR FIT Error includes scale factor of 1.3. [(1.10 ± 0.07) × 10^{-3} OUR 2025 FIT Scale factor = 1.1] NEW			
1.11±0.12 OUR AVERAGE Error includes scale factor of 1.4.			
0.96±0.12±0.06±0.03	[1,2] LEES 20C	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
1.20±0.08±0.07	[1] KATO 18	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$1.17^{+0.14}_{-0.13}{}^{+0.16}_{-0.17}$	[3] CHILIKIN 19	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
0.87±0.15	[1,4] AUBERT 06E	BABR	Repl. by LEES 20C
$1.62^{+0.32}_{-0.25}\pm0.17$	[5] AUBERT,B 05L	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
1.26±0.15±0.11	[4,6] AUBERT,B 04B	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
$1.25\pm0.14^{+0.39}_{-0.40}$	[7] FANG 03	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
$0.69^{+0.26}_{-0.21}\pm0.22$	[8] EDWARDS 01	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Measures absolute branching fractions using a missing-mass technique. NODE=S041B40;LINKAGE=AT

[2] LEES 20C measurement's last uncertainty is due to the used $B(B^\pm \rightarrow K^\pm J/\psi)$ value. NODE=S041B40;LINKAGE=C

[3] CHILIKIN 19 reports $[\Gamma(B^+ \rightarrow \eta_c K^+)/\Gamma_{total}] \times [B(\eta_c(1S) \rightarrow p\overline{p}\pi^+\pi^-)] = (39.4^{+4.1}_{-3.9}{}^{+2.2}_{-1.8}) \times 10^{-7}$ which we divide by our best value $B(\eta_c(1S) \rightarrow p\overline{p}\pi^+\pi^-) = (3.4 \pm 0.5) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B40;LINKAGE=B

[4] The ratio of $B(B^\pm \rightarrow K^\pm\eta_c)$ $B(\eta_c \rightarrow K\overline{K}\pi) = (7.4 \pm 0.5 \pm 0.7) \times 10^{-5}$ reported in AUBERT,B 04B and $B(B^\pm \rightarrow K^\pm\eta_c) = (8.7 \pm 1.5) \times 10^{-3}$ reported in AUBERT 06E contribute to the determination of $B(\eta_c \rightarrow K\overline{K}\pi)$, which is used by others for normalization. NODE=S041B40;LINKAGE=AV

[5] AUBERT,B 05L reports $[\Gamma(B^+ \rightarrow \eta_c K^+)/\Gamma_{total}] \times [B(\eta_c(1S) \rightarrow p\overline{p})] = (1.8^{+0.3}_{-0.2} \pm 0.2) \times 10^{-6}$ which we divide by our best value $B(\eta_c(1S) \rightarrow p\overline{p}) = (1.11 \pm 0.12) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B40;LINKAGE=AE

[6] AUBERT,B 04B reports $[\Gamma(B^+ \rightarrow \eta_c K^+)/\Gamma_{total}] \times [B(\eta_c(1S) \rightarrow K\overline{K}\pi)] = (0.074 \pm 0.005 \pm 0.007) \times 10^{-3}$ which we divide by our best value $B(\eta_c(1S) \rightarrow K\overline{K}\pi) = (5.9 \pm 0.5) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B40;LINKAGE=AU

[7] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B40;LINKAGE=EP

[8] EDWARDS 01 assumes equal production of B^0 and B^+ at the $\Upsilon(4S)$. The correlated uncertainties (28.3)% from $B(J/\psi(1S) \rightarrow \gamma\eta_c)$ in those modes have been accounted for. NODE=S041B40;LINKAGE=A

$\Gamma(B^+ \to \eta_c K^+)/\Gamma_{total} \times \Gamma(\eta_c(1S) \to \gamma\gamma)/\Gamma_{total}$ — $\Gamma_{274}/\Gamma \times \Gamma_{60}^{\eta_c(1S)}/\Gamma^{\eta_c(1S)}$

NODE=S041B08
NODE=S041B08

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.22^{+0.09+0.04}_{-0.07-0.02}}$	[1] WICHT	08	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B08;LINKAGE=EP

$\Gamma(\eta_c K^*(892)^+)/\Gamma_{total}$ — Γ_{275}/Γ

NODE=S041Q96
NODE=S041Q96

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
$\mathbf{1.4^{+0.7}_{-0.5}}$ **OUR AVERAGE** $[(1.2^{+0.5}_{-0.4}) \times 10^{-3}$ OUR 2025 AVERAGE]				
$\mathbf{1.4^{+0.6}_{-0.5}\pm0.1}$	[1,2] AUBERT	07AV	BABR	$e^+e^- \to \Upsilon(4S)$

NEW

[1] AUBERT 07AV reports $[\Gamma(B^+ \to \eta_c K^*(892)^+)/\Gamma_{total}] \times [B(\eta_c(1S) \to p\overline{p})] = (1.57^{+0.56}_{-0.46}{}^{+0.45}_{-0.36}) \times 10^{-6}$ which we divide by our best value $B(\eta_c(1S) \to p\overline{p}) = (1.11 \pm 0.12) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041Q96;LINKAGE=AU

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041Q96;LINKAGE=EP

$\Gamma(\eta_c K^+\pi^+\pi^-)/\Gamma_{total}$ — Γ_{276}/Γ

NODE=S041C93
NODE=S041C93

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{<3.9 \times 10^{-4}}$	90	VINOKUROVA	15	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\eta_c K^+\omega(782))/\Gamma_{total}$ — Γ_{277}/Γ

NODE=S041C94
NODE=S041C94

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{<5.3 \times 10^{-4}}$	90	VINOKUROVA	15	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\eta_c K^+\eta)/\Gamma_{total}$ — Γ_{278}/Γ

NODE=S041C95
NODE=S041C95

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{<2.2 \times 10^{-4}}$	90	VINOKUROVA	15	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\eta_c K^+\pi^0)/\Gamma_{total}$ — Γ_{279}/Γ

NODE=S041C96
NODE=S041C96

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{<6.2 \times 10^{-5}}$	90	VINOKUROVA	15	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\eta_c(2S)K^+)/\Gamma_{total}$ — Γ_{280}/Γ

NODE=S041Q77
NODE=S041Q77

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
4.4±1.0 OUR AVERAGE				
3.5±1.7±0.5±0.1	[1,2] LEES	20C	BABR	$e^+e^- \to \Upsilon(4S)$
4.8±1.1±0.3	[2] KATO	18	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
3.4±1.8±0.3	[2] AUBERT	06E	BABR	Repl. by LEES 20C

[1] LEES 20C measurement's last uncertainty is due to the used $B(B^\pm \to K^\pm J/\psi)$ value.

NODE=S041Q77;LINKAGE=A

[2] Measures absolute branching fractions using a missing-mass technique.

NODE=S041Q77;LINKAGE=AT

$\Gamma(\eta_c(2S)K^+, \eta_c \to p\overline{p})/\Gamma_{total}$ — Γ_{281}/Γ

NODE=S041BA2
NODE=S041BA2

VALUE (units 10^{-8})	CL%	DOCUMENT ID		TECN	COMMENT
3.47±0.72±0.26		[1] AAIJ	17AD	LHCB	pp at 7 and 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<10.6	95	[2] AAIJ	13S	LHCB	Repl. by AAIJ 17AD

[1] Measured relative to $B^+ \to J/\psi K^+$ decay with charmonia reconstructed in $p\overline{p}$ final state and using $B(B^+ \to J/\psi K^+) \times B(J/\psi \to p\overline{p}) = (2.17 \pm 0.08) \times 10^{-6}$. The last uncertainty includes the uncertainty of $B(B^+ \to J/\psi K^+) \times B(J/\psi \to p\overline{p})$.

NODE=S041BA2;LINKAGE=A

[2] Measured relative to $B^+ \to J/\psi K^+$ decay with charmonia reconstructed in $p\overline{p}$ final state and using $B(B^+ \to J/\psi K^+) = (1.013 \pm 0.034) \times 10^{-3}$ and $B(J/\psi \to p\overline{p}) = (2.17 \pm 0.07) \times 10^{-3}$.

NODE=S041BA2;LINKAGE=AA

$\Gamma(\eta_c(2S)K^+, \eta_c \to p\overline{p}\pi^+\pi^-)/\Gamma_{total}$ — Γ_{283}/Γ

NODE=S041P70
NODE=S041P70

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
$\mathbf{11.2^{+1.8+0.5}_{-1.6-0.7}}$	CHILIKIN	19	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(B^+ \to h_c(1P) K^+)/\Gamma_{total} \times \Gamma(h_c(1P) \to \gamma\eta_c(1S))/\Gamma_{total}$

$\Gamma_{409}/\Gamma \times \Gamma_{30}^{h_c(1P)}/\Gamma^{h_c(1P)}$

NODE=S041C16
NODE=S041C16

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<0.48	90	[1] AUBERT	08AB	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Uses the production ratio of $(B^+B^-)/(B^0\overline{B}^0) = 1.026 \pm 0.032$ at $\Upsilon(4S)$.

NODE=S041C16;LINKAGE=PR

$\Gamma(B^+ \to \eta_c(2S) K^+)/\Gamma_{total} \times \Gamma(\eta_c(2S) \to \gamma\gamma)/\Gamma_{total}$

$\Gamma_{280}/\Gamma \times \Gamma_{26}^{\eta_c(2S)}/\Gamma^{\eta_c(2S)}$

NODE=S041B09
NODE=S041B09

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.18	90	[1] WICHT	08	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B09;LINKAGE=EP

$\Gamma(\eta_c(2S) K^+,\ \eta_c \to K^0_S K^\mp \pi^\pm)/\Gamma_{total}$ Γ_{282}/Γ

NODE=S041C65
NODE=S041C65

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$\mathbf{3.4^{+2.2}_{-1.5}{}^{+0.5}_{-0.4}}$	[1,2] VINOKUROVA	11	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^0 and B^+ from Upsilon(4S) decays.

NODE=S041C65;LINKAGE=EP

[2] The first uncertainty includes both statistical and interference effects while the second is due to systematics.

NODE=S041C65;LINKAGE=VI

$\Gamma(J/\psi(1S) K^+)/\Gamma_{total}$ Γ_{316}/Γ

NODE=S041R3
NODE=S041R3

NEW

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
10.19± 0.19 OUR FIT					
[$(10.20 \pm 0.19) \times 10^{-4}$ OUR 2025 FIT]					
10.18± 0.20 OUR AVERAGE					
10.32± 0.07±0.24		[1] CHOUDHURY	21	BELL	$e^+e^- \to \Upsilon(4S)$
9.4 ± 0.7 ±0.8		[2] CHILIKIN	19	BELL	$e^+e^- \to \Upsilon(4S)$
8.9 ± 0.6 ±0.5		[3] KATO	18	BELL	$e^+e^- \to \Upsilon(4S)$
8.1 ± 1.3 ±0.7		[3] AUBERT	06E	BABR	$e^+e^- \to \Upsilon(4S)$
10.61± 0.15±0.48		[4] AUBERT	05J	BABR	$e^+e^- \to \Upsilon(4S)$
10.4 ± 1.1 ±0.1		[5] AUBERT,B	05L	BABR	$e^+e^- \to \Upsilon(4S)$
10.2 ± 0.8 ±0.7		[4] JESSOP	97	CLE2	$e^+e^- \to \Upsilon(4S)$
9.24± 3.04±0.05		[6] BORTOLETTO	92	CLEO	$e^+e^- \to \Upsilon(4S)$
8.09± 3.50±0.04	6	[7] ALBRECHT	90J	ARG	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
10.1 ± 0.2 ±0.7		[4] ABE	03B	BELL	Repl. by CHOUDHURY 21
10.1 ± 0.3 ±0.5		[4] AUBERT	02	BABR	Repl. by AUBERT 05J
11.0 ± 1.5 ±0.9	59	[4] ALAM	94	CLE2	Repl. by JESSOP 97
22 ±10 ±2		BUSKULIC	92G	ALEP	$e^+e^- \to Z$
7 ± 4	3	[8] ALBRECHT	87D	ARG	$e^+e^- \to \Upsilon(4S)$
10 ± 7 ±2	3	[9] BEBEK	87	CLEO	$e^+e^- \to \Upsilon(4S)$
9 ± 5	3	[10] ALAM	86	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] CHOUDHURY 21 uses the relative production fraction of charged (f^{+-}) to neutral (f^{00}) B mesons at $\Upsilon(4S)$ value of $f^{+-}/f^{00} = 1.058 \pm 0.024$.

NODE=S041R3;LINKAGE=E

[2] CHILIKIN 19 reports $[\Gamma(B^+ \to J/\psi(1S) K^+)/\Gamma_{total}] \times [B(J/\psi(1S) \to p\overline{p}\pi^+\pi^-)] = (56.4^{+3.3}_{-3.2}{}^{+2.7}_{-2.5}) \times 10^{-7}$ which we divide by our best value $B(J/\psi(1S) \to p\overline{p}\pi^+\pi^-) = (6.0 \pm 0.5) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041R3;LINKAGE=D

[3] Measures absolute branching fractions using a missing-mass technique.

NODE=S041R3;LINKAGE=AT

[4] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R3;LINKAGE=EP

[5] AUBERT,B 05L reports $[\Gamma(B^+ \to J/\psi(1S) K^+)/\Gamma_{total}] \times [B(J/\psi(1S) \to p\overline{p})] = (2.2 \pm 0.2 \pm 0.1) \times 10^{-6}$ which we divide by our best value $B(J/\psi(1S) \to p\overline{p}) = (2.121 \pm 0.029) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041R3;LINKAGE=AE

[6] BORTOLETTO 92 reports $(8 \pm 2 \pm 2) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to J/\psi(1S) K^+)/\Gamma_{total}] \times [B(J/\psi(1S) \to e^+e^-)]$ assuming $B(J/\psi(1S) \to e^+e^-) = 0.069 \pm 0.009$, which we rescale to our best value $B(J/\psi(1S) \to e^+e^-) = (5.971 \pm 0.032) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R3;LINKAGE=AB

[7] ALBRECHT 90J reports $(7 \pm 3 \pm 1) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to J/\psi(1S) K^+)/\Gamma_{total}] \times [B(J/\psi(1S) \to e^+e^-)]$ assuming $B(J/\psi(1S) \to e^+e^-) = 0.069 \pm 0.009$, which we rescale to our best value $B(J/\psi(1S) \to e^+e^-) = (5.971 \pm 0.032) \times 10^{-2}$. Our first error is their experiment's error and our second

NODE=S041R3;LINKAGE=BA

error is the systematic error from using our best value. Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

[8] ALBRECHT 87D assume $B^+ B^- / B^0 \overline{B}^0$ ratio is 55/45. Superseded by ALBRECHT 90J. NODE=S041R3;LINKAGE=C

[9] BEBEK 87 value has been updated in BERKELMAN 91 to use same assumptions as noted for BORTOLETTO 92. NODE=S041R3;LINKAGE=A

[10] ALAM 86 assumes $B^{\pm}/B^0$ ratio is 60/40. NODE=S041R3;LINKAGE=B

$\Gamma(\eta_c K^+)/\Gamma(J/\psi(1S) K^+)$ $\Gamma_{274}/\Gamma_{316}$

NODE=S041Q06
NODE=S041Q06
NEW

VALUE	DOCUMENT ID		TECN	COMMENT
1.12±0.14 OUR AVERAGE				
[0.94 ± 0.10 OUR 2025 AVERAGE]				
1.10±0.08±0.12	[1] AAIJ	13S	LHCB	pp at 7 TeV
1.33±0.10±0.43	[2] AUBERT,B	04B	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] AAIJ 13S reports $[\Gamma(B^+ \to \eta_c K^+)/\Gamma(B^+ \to J/\psi(1S) K^+)] \times [B(\eta_c(1S) \to p\overline{p})] / [B(J/\psi(1S) \to p\overline{p})] = 0.578 \pm 0.035 \pm 0.026$ which we multiply or divide by our best values $B(\eta_c(1S) \to p\overline{p}) = (1.11 \pm 0.12) \times 10^{-3}$, $B(J/\psi(1S) \to p\overline{p}) = (2.121 \pm 0.029) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best values. NODE=S041Q06;LINKAGE=AB

[2] Uses BABAR measurement of $B(B^+ \to J/\psi K^+) = (10.1 \pm 0.3 \pm 0.5) \times 10^{-4}$. NODE=S041Q06;LINKAGE=AU

$\Gamma(B^+ \to J/\psi(1S) K^+)/\Gamma_{total} \times \Gamma(J/\psi(1S) \to \gamma\gamma)/\Gamma_{total}$

$\Gamma_{316}/\Gamma \times \Gamma^{J/\psi(1S)}_{402}/\Gamma^{J/\psi(1S)}$

NODE=S041C14
NODE=S041C14

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.16	90	[1] WICHT	08	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C14;LINKAGE=EP

$\Gamma(J/\psi(1S) K^+ \pi^+ \pi^-)/\Gamma_{total}$ Γ_{318}/Γ

NODE=S041R19
NODE=S041R19

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
0.81 ±0.13 OUR AVERAGE Error includes scale factor of 2.5. See the ideogram below.						
0.716±0.010±0.060			[1] GULER	11	BELL	$e^+ e^- \to \Upsilon(4S)$
1.16 ±0.07 ±0.09			[1] AUBERT	05R	BABR	$e^+ e^- \to \Upsilon(4S)$
0.69 ±0.18 ±0.12			[2] ACOSTA	02F	CDF	$p\overline{p}$ 1.8 TeV
1.39 ±0.81 ±0.01			[3] BORTOLETTO	92	CLEO	$e^+ e^- \to \Upsilon(4S)$
1.39 ±0.91 ±0.01		6	[4] ALBRECHT	87D	ARG	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<1.8	90		[5] ALBRECHT	90J	ARG	$e^+ e^- \to \Upsilon(4S)$

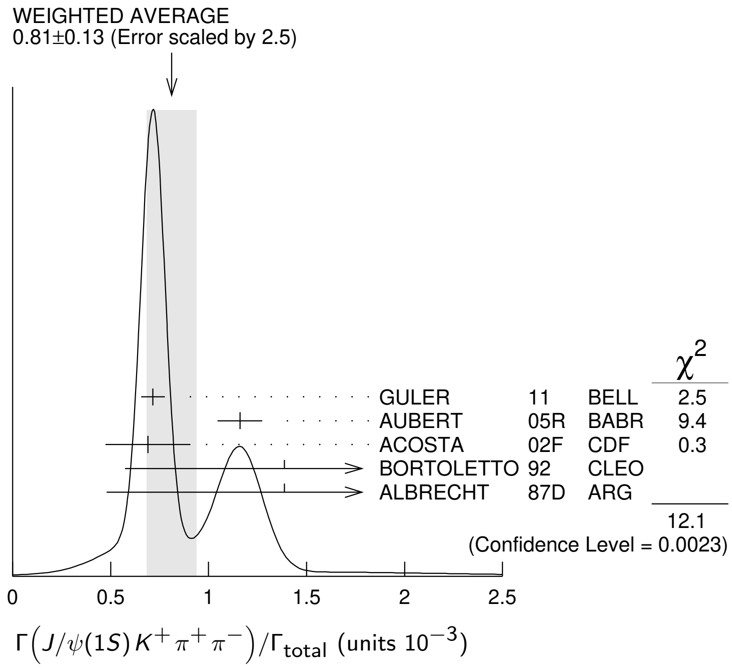
[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R19;LINKAGE=EP

[2] ACOSTA 02F uses as reference of $B(B \to J/\psi(1S) K^+) = (10.1 \pm 0.6) \times 10^{-4}$. The second error includes the systematic error and the uncertainties of the branching ratio. NODE=S041R19;LINKAGE=CA

[3] BORTOLETTO 92 reports $(1.2 \pm 0.6 \pm 0.4) \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to J/\psi(1S) K^+ \pi^+ \pi^-)/\Gamma_{total}] \times [B(J/\psi(1S) \to e^+ e^-)]$ assuming $B(J/\psi(1S) \to e^+ e^-) = 0.069 \pm 0.009$, which we rescale to our best value $B(J/\psi(1S) \to e^+ e^-) = (5.971 \pm 0.032) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R19;LINKAGE=B9

[4] ALBRECHT 87D reports $(1.2 \pm 0.8) \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to J/\psi(1S) K^+ \pi^+ \pi^-)/\Gamma_{total}] \times [B(J/\psi(1S) \to e^+ e^-)]$ assuming $B(J/\psi(1S) \to e^+ e^-) = 0.069 \pm 0.009$, which we rescale to our best value $B(J/\psi(1S) \to e^+ e^-) = (5.971 \pm 0.032) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. They actually report 0.0011 ± 0.0007 assuming $B^+ B^- / B^0 \overline{B}^0$ ratio is 55/45. We rescale to 50/50. Analysis explicitly removes $B^+ \to \psi(2S) K^+$. NODE=S041R19;LINKAGE=C

[5] ALBRECHT 90J reports $< 1.6 \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to J/\psi(1S) K^+ \pi^+ \pi^-)/\Gamma_{total}] \times [B(J/\psi(1S) \to e^+ e^-)]$ assuming $B(J/\psi(1S) \to e^+ e^-) = 0.069$, which we rescale to our best value $B(J/\psi(1S) \to e^+ e^-) = 5.971 \times 10^{-2}$. Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R19;LINKAGE=9B



$\Gamma\big(J/\psi(1S)K^+K^-K^+\big)/\Gamma_{\text{total}}$ Γ_{319}/Γ

NODE=S041RA7
NODE=S041RA7

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
33.7±2.5±1.4	LEES	15	BABR	$e^+e^- \to \Upsilon(4S)$

$\Gamma\big(h_c(1P)K^+,\ h_c \to J/\psi\pi^+\pi^-\big)/\Gamma_{\text{total}}$ Γ_{284}/Γ

NODE=S041Q69
NODE=S041Q69

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<3.4 × 10^{-6}	90	[1] AUBERT	05R	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041Q69;LINKAGE=EP

$\Gamma\big(X(3730)^0K^+,\ X^0 \to \eta_c\eta\big)/\Gamma_{\text{total}}$ Γ_{285}/Γ

NODE=S041C97
NODE=S041C97

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<4.6 × 10^{-5}	90	VINOKUROVA	15	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma\big(X(3730)^0K^+,\ X^0 \to \eta_c\pi^0\big)/\Gamma_{\text{total}}$ Γ_{286}/Γ

NODE=S041C98
NODE=S041C98

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<5.7 × 10^{-6}	90	VINOKUROVA	15	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma\big(\eta_{c2}(1D)K^+,\ \eta_{c2} \to h_c\gamma\big)/\Gamma_{\text{total}}$ Γ_{287}/Γ

NODE=S041P86
NODE=S041P86

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<3.7 × 10^{-5}	90	CHILIKIN	20	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma\big(\eta_{c2}(1D)\pi^+K^0_S,\ \eta_{c2} \to h_c\gamma\big)/\Gamma_{\text{total}}$ Γ_{288}/Γ

NODE=S041P87
NODE=S041P87

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.1 × 10^{-4}	90	CHILIKIN	20	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma\big(\psi_2(3823)K^+,\ \psi_2 \to J/\psi\pi^+\pi^-\big)/\Gamma_{\text{total}}$ Γ_{289}/Γ

NODE=S041P85
NODE=S041P85

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
2.82±0.54±0.13	[1] AAIJ	20S	LHCB	pp at 7, 8, 13 TeV

[1] The first error is statistic; the second error is the total systematic error.

NODE=S041P85;LINKAGE=A

$\Gamma\big(\psi_2(3823)K^+,\ \psi_2 \to J/\psi\eta\big)/\Gamma_{\text{total}}$ Γ_{290}/Γ

NODE=S041A56
NODE=S041A56

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$1.25^{+0.71}_{-0.53}$±0.04	AAIJ	22D	LHCB	pp at 7, 8, 13 TeV

$\Gamma\big(\psi_3(3842)K^+,\ \psi_3 \to J/\psi\eta\big)/\Gamma_{\text{total}}$ Γ_{291}/Γ

NODE=S041A58
NODE=S041A58

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<6.1 × 10^{-7}	90	AAIJ	22D	LHCB	pp at 7, 8, 13 TeV

$\Gamma(\chi_{c1}(3872) K^+)/\Gamma_{total}$ Γ_{292}/Γ

NODE=S041C3

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
1.9±0.6 OUR AVERAGE					
2.1±0.6±0.3±0.1		[1,2] LEES	20C	BABR	$e^+e^- \to \Upsilon(4S)$
1.2±1.1±0.1		[1,3] KATO	18	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2.3±0.6±0.7		[4,5] AUBERT	06	BABR	Repl. by AUBERT 08Y
<3.2	90	[1] AUBERT	06E	BABR	$e^+e^- \to \Upsilon(4S)$
2.9±0.9±0.9		[4,6] AUBERT	05R	BABR	Repl. by AUBERT 06
3.1±0.7±1.0		[7] CHOI	03	BELL	Repl. by CHOI 11

[1] Measures absolute branching fractions using a missing-mass technique. NODE=S041C3;LINKAGE=AT

[2] LEES 20C measurement's last uncertainty is due to the used B($B^\pm \to K^\pm J/\psi$) value. NODE=S041C3;LINKAGE=I

[3] KATO 18 value corresponds to upper limit of $< 2.6 \times 10^{-4}$ at 90% CL. NODE=S041C3;LINKAGE=K

[4] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C3;LINKAGE=EP

[5] AUBERT 06 reports $[\Gamma(B^+ \to \chi_{c1}(3872) K^+)/\Gamma_{total}] \times [B(\chi_{c1}(3872) \to \pi^+\pi^- J/\psi(1S))] = (10.1 \pm 2.5 \pm 1.0) \times 10^{-6}$ which we divide by our best value $B(\chi_{c1}(3872) \to \pi^+\pi^- J/\psi(1S)) = (4.3 \pm 1.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C3;LINKAGE=F

[6] AUBERT 05R reports $[\Gamma(B^+ \to \chi_{c1}(3872) K^+)/\Gamma_{total}] \times [B(\chi_{c1}(3872) \to \pi^+\pi^- J/\psi(1S))] = (12.8 \pm 4.1) \times 10^{-6}$ which we divide by our best value $B(\chi_{c1}(3872) \to \pi^+\pi^- J/\psi(1S)) = (4.3 \pm 1.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C3;LINKAGE=G

[7] CHOI 03 reports $[\Gamma(B^+ \to \chi_{c1}(3872) K^+)/\Gamma_{total}] \times [B(\chi_{c1}(3872) \to \pi^+\pi^- J/\psi(1S))] = (13.6 \pm 3.0 \pm 0.5) \times 10^{-6}$ which we divide by our best value $B(\chi_{c1}(3872) \to \pi^+\pi^- J/\psi(1S)) = (4.3 \pm 1.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C3;LINKAGE=CH

$\Gamma(\chi_{c0}(3915) K^+)/\Gamma_{total}$ Γ_{293}/Γ

NODE=S041P47

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<2.8 × 10^{-4}	90	[1] KATO	18	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Measures absolute branching fractions using a missing-mass technique. NODE=S041P47;LINKAGE=A

$\Gamma(\chi_{c0}(3915) K^+,\ \chi_{c0} \to D^+D^-)/\Gamma(D^-D^+K^+)$ $\Gamma_{294}/\Gamma_{228}$

NODE=S041A21

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
3.7±0.9±0.2	[1] AAIJ	20AI	LHCB	pp at 7, 8, 13 TeV

[1] Measured in Dalitz plot analysis of $B^+ \to D^- D^+ K^+$ decays. NODE=S041A21;LINKAGE=A

$\Gamma(\chi_{c0}(3915) K^+,\ \chi_{c0} \to \eta_c \eta)/\Gamma_{total}$ Γ_{295}/Γ

NODE=S041P13

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<4.7 × 10^{-5}	90	[1] VINOKUROVA	15	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Upper limit is corrected in the Erratum. NODE=S041P13;LINKAGE=A

$\Gamma(\chi_{c0}(3915) K^+,\ \chi_{c0} \to \eta_c \pi^0)/\Gamma_{total}$ Γ_{296}/Γ

NODE=S041P14

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.7 × 10^{-5}	90	[1] VINOKUROVA	15	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Upper limit is corrected in the Erratum. NODE=S041P14;LINKAGE=A

$\Gamma(X(4014)^0 K^+,\ X^0 \to \eta_c \eta)/\Gamma_{total}$ Γ_{297}/Γ

NODE=S041P15

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<3.9 × 10^{-5}	90	VINOKUROVA	15	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(X(4014)^0 K^+,\ X^0 \to \eta_c \pi^0)/\Gamma_{total}$ Γ_{298}/Γ

NODE=S041P16

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.2 × 10^{-5}	90	VINOKUROVA	15	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(T_{c\overline{c}1}(3900)^0 K^+,\ T^0_{c\overline{c}1} \to \eta_c \pi^+\pi^-)/\Gamma_{total}$ Γ_{299}/Γ

NODE=S041P17

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<4.7 × 10^{-5}	90	VINOKUROVA	15	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(T_{c\overline{c}1}(3900)^0 K^+,\ T^0_{c\overline{c}1} \to J/\psi \eta)/\Gamma_{total}$ Γ_{300}/Γ

NODE=S041A60

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<4.3 × 10^{-7}	90	AAIJ	22D	LHCB	pp at 7, 8, 13 TeV

$\Gamma(T_{c\overline{c}}(4020)^0 K^+,\ T^0_{c\overline{c}} \to \eta_c \pi^+\pi^-)/\Gamma_{total}$ Γ_{301}/Γ

NODE=S041P18

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
<1.6 × 10^{-5}	90	VINOKUROVA 15	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\chi_{c1}(3872) K^*(892)^+)/\Gamma_{total}$ Γ_{302}/Γ

NODE=S041P98

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
<5 × 10^{-4}	90	[1,2] AUBERT 09B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
5 × 10^{-4}	90	[2,3] AUBERT 09B	BABR	$e^+e^- \to \Upsilon(4S)$

OCCUR=2

[1] AUBERT 09B reports $[\Gamma(B^+ \to \chi_{c1}(3872) K^*(892)^+)/\Gamma_{total}] \times [B(\chi_{c1}(3872) \to \gamma J/\psi)] < 4.8 \times 10^{-6}$ which we divide by our best value $B(\chi_{c1}(3872) \to \gamma J/\psi) = 10 \times 10^{-3}$. NODE=S041P98;LINKAGE=A

[2] Uses $B(\Upsilon(4S) \to B^+ B^-) = (51.6 \pm 0.6)\%$ and $B(\Upsilon(4S) \to B^0 \overline{B}^0) = (48.4 \pm 0.6)\%$. NODE=S041P98;LINKAGE=B

[3] AUBERT 09B reports $[\Gamma(B^+ \to \chi_{c1}(3872) K^*(892)^+)/\Gamma_{total}] \times [B(\chi_{c1}(3872) \to \gamma\psi(2S))] < 28 \times 10^{-6}$ which we divide by our best value $B(\chi_{c1}(3872) \to \gamma\psi(2S)) = 0 \times 10^{-2}$. NODE=S041P98;LINKAGE=C

$\Gamma(\chi_{c1}(3872)^+ K^0,\ \chi^+_{c1} \to J/\psi(1S)\pi^+\pi^0)/\Gamma_{total}$ Γ_{303}/Γ

NODE=S041Q52

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
< 6.1	90	[1,2] CHOI 11	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<22	90	[3] AUBERT 05B	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes $\pi^+\pi^0$ originates from ρ^+. NODE=S041Q52;LINKAGE=CH

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q52;LINKAGE=EP

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. The isovector-X hypothesis is excluded with a likelihood test at 1×10^{-4} level. NODE=S041Q52;LINKAGE=AU

$\Gamma(\chi_{c1}(3872) K^0\pi^+)/\Gamma_{total}$ Γ_{304}/Γ

NODE=S041C85

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
2.4±0.7±0.8	[1] BALA 15	BELL	$e^+e^- \to \Upsilon(4S)$

[1] BALA 15 reports $[\Gamma(B^+ \to \chi_{c1}(3872) K^0\pi^+)/\Gamma_{total}] \times [B(\chi_{c1}(3872) \to \pi^+\pi^- J/\psi(1S))] = (10.6 \pm 3.0 \pm 0.9) \times 10^{-6}$ which we divide by our best value $B(\chi_{c1}(3872) \to \pi^+\pi^- J/\psi(1S)) = (4.3 \pm 1.4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C85;LINKAGE=A

$\Gamma(T_{c\overline{c}1}(4430)^+ K^0,\ T^+_{c\overline{c}1} \to J/\psi\pi^+)/\Gamma_{total}$ Γ_{305}/Γ

NODE=S041C54

VALUE (units 10^{-5})	CL%	DOCUMENT ID	TECN	COMMENT
<1.5	95	[1] AUBERT 09AA	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C54;LINKAGE=EP

$\Gamma(T_{c\overline{c}1}(4430)^+ K^0,\ T^+_{c\overline{c}1} \to \psi(2S)\pi^+)/\Gamma_{total}$ Γ_{306}/Γ

NODE=S041C55

VALUE (units 10^{-5})	CL%	DOCUMENT ID	TECN	COMMENT
<4.7	95	[1] AUBERT 09AA	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C55;LINKAGE=EP

$\Gamma(T_{c\overline{c}1}(4430)^0 K^+,\ T^0_{c\overline{c}1} \to J/\psi\eta)/\Gamma_{total}$ Γ_{307}/Γ

NODE=S041A61

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
<12.7 × 10^{-7}	90	AAIJ 22D	LHCB	pp at 7, 8, 13 TeV

$\Gamma(\psi(4230)^0 K^+,\ \psi^0 \to J/\psi\pi^+\pi^-)/\Gamma_{total}$ Γ_{308}/Γ

NODE=S041Q57

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
<15.6	95	[1,2] GARG 19	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<29	95	[2] AUBERT 06	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Corresponds to a 90% CL upper limit of $< 14 \times 10^{-6}$. NODE=S041Q57;LINKAGE=A

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q57;LINKAGE=EP

$\Gamma(\psi(4230) K^+,\ \psi \to J/\psi\eta)/\Gamma_{total}$ Γ_{309}/Γ

NODE=S041A62

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
<3.9 × 10^{-7}	90	AAIJ 22D	LHCB	pp at 7, 8, 13 TeV

$\Gamma(\psi(4360)K^+,\ \psi \to J/\psi\eta)/\Gamma_{total}$ Γ_{310}/Γ

NODE=S041A63
NODE=S041A63

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<12.4 × 10^{-7}	90	AAIJ	22D	LHCB	pp at 7, 8, 13 TeV

$\Gamma(\psi(4360)K^+,\ \psi(4360) \to \psi(2S)\pi^+\pi^-)/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{311}/\Gamma_{355}$

NODE=S041D68
NODE=S041D68

VALUE	DOCUMENT ID		TECN	COMMENT
0.0064±0.0014±0.0012	[1] AAIJ	25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S)K^+\pi^+\pi^-$.

NODE=S041D68;LINKAGE=A

$\Gamma(\psi(4390)K^+,\ \psi \to J/\psi\eta)/\Gamma_{total}$ Γ_{312}/Γ

NODE=S041A64
NODE=S041A64

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<24.1 × 10^{-7}	90	AAIJ	22D	LHCB	pp at 7, 8, 13 TeV

$\Gamma(\chi_{c0}(3915)K^+,\ \chi_{c0} \to J/\psi\gamma)/\Gamma_{total}$ Γ_{313}/Γ

NODE=S041R00
NODE=S041R00

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<14	90	[1] AUBERT,BE	06M	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R00;LINKAGE=EP

$\Gamma(\chi_{c0}(3915)K^+,\ \chi_{c0} \to \chi_{c1}(1P)\pi^0)/\Gamma_{total}$ Γ_{314}/Γ

NODE=S041P67
NODE=S041P67

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<3.8 × 10^{-5}	90	[1] BHARDWAJ	19	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041P67;LINKAGE=A

$\Gamma(X(3930)^0K^+,\ X^0 \to J/\psi\gamma)/\Gamma_{total}$ Γ_{315}/Γ

NODE=S041R01
NODE=S041R01

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<2.5	90	[1] AUBERT,BE	06M	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R01;LINKAGE=EP

$\Gamma(J/\psi(1S)K^0\pi^+)/\Gamma_{total}$ Γ_{317}/Γ

NODE=S041C74
NODE=S041C74

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1.101±0.021	[1] AUBERT	09AA	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Does not report systematic uncertainties.

NODE=S041C74;LINKAGE=AU

$\Gamma(J/\psi(1S)K^*(892)^+)/\Gamma_{total}$ Γ_{321}/Γ

NODE=S041R65

For polarization information see the Listings at the end of the "B^0 Branching Ratios" section.

NODE=S041R65

NODE=S041R65

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
1.43 ±0.08 OUR FIT					
1.43 ±0.08 OUR AVERAGE					
1.78 $^{+0.36}_{-0.32}$ ±0.02		[1,2] AUBERT	07AV	BABR	$e^+e^- \to \Upsilon(4S)$
1.454±0.047±0.097		[2] AUBERT	05J	BABR	$e^+e^- \to \Upsilon(4S)$
1.28 ±0.07 ±0.14		[2] ABE	02N	BELL	$e^+e^- \to \Upsilon(4S)$
1.41 ±0.23 ±0.24		[2] JESSOP	97	CLE2	$e^+e^- \to \Upsilon(4S)$
1.58 ±0.47 ±0.27		[3] ABE	96H	CDF	$p\overline{p}$ at 1.8 TeV
1.50 ±1.08 ±0.01		[4] BORTOLETTO	92	CLEO	$e^+e^- \to \Upsilon(4S)$
1.85 ±1.30 ±0.01	2	[5] ALBRECHT	90J	ARG	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1.37 ±0.09 ±0.11		[2] AUBERT	02	BABR	Repl. by AUBERT 05J
1.78 ±0.51 ±0.23	13	[2] ALAM	94	CLE2	Sup. by JESSOP 97

[1] AUBERT 07AV reports $[\Gamma(B^+ \to J/\psi(1S)K^*(892)^+)/\Gamma_{total}] \times [B(J/\psi(1S) \to p\overline{p})] = (3.78^{+0.72}_{-0.64}{}^{+0.28}_{-0.23}) \times 10^{-6}$ which we divide by our best value $B(J/\psi(1S) \to p\overline{p}) = (2.121 \pm 0.029) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041R65;LINKAGE=AU

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R65;LINKAGE=EP

[3] ABE 96H assumes that $B(B^+ \to J/\psi K^+) = (1.02 \pm 0.14) \times 10^{-3}$.

NODE=S041R65;LINKAGE=AH

[4] BORTOLETTO 92 reports $(1.3 \pm 0.9 \pm 0.3) \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to J/\psi(1S)K^*(892)^+)/\Gamma_{total}] \times [B(J/\psi(1S) \to e^+e^-)]$ assuming $B(J/\psi(1S) \to e^+e^-) = 0.069 \pm 0.009$, which we rescale to our best value $B(J/\psi(1S) \to e^+e^-) = (5.971 \pm 0.032) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R65;LINKAGE=H9

[5] ALBRECHT 90J reports $(1.6 \pm 1.1 \pm 0.3) \times 10^{-3}$ from a measurement of $[\Gamma(B^+ \to J/\psi(1S) K^*(892)^+)/\Gamma_{total}] \times [B(J/\psi(1S) \to e^+e^-)]$ assuming $B(J/\psi(1S) \to e^+e^-) = 0.069 \pm 0.009$, which we rescale to our best value $B(J/\psi(1S) \to e^+e^-) = (5.971 \pm 0.032) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R65;LINKAGE=9H

$\Gamma(J/\psi(1S) K^*(892)^+)/\Gamma(J/\psi(1S) K^+)$ — $\Gamma_{321}/\Gamma_{316}$

NODE=S041S98

VALUE	DOCUMENT ID		TECN	COMMENT
1.39±0.09 OUR AVERAGE				
1.37±0.05±0.08	AUBERT	05J	BABR	$e^+e^- \to \Upsilon(4S)$
1.45±0.20±0.17	[1] JESSOP	97	CLE2	$e^+e^- \to \Upsilon(4S)$
1.92±0.60±0.17	ABE	96Q	CDF	$p\overline{p}$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1.37±0.10±0.08	[2] AUBERT	02	BABR	Repl. by AUBERT 05J

[1] JESSOP 97 assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. The measurement is actually measured as an average over kaon charged and neutral states. NODE=S041S98;LINKAGE=JJ

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S98;LINKAGE=EP

$\Gamma(J/\psi(1S) K(1270)^+)/\Gamma_{total}$ — Γ_{322}/Γ

NODE=S041B49

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
1.80±0.34±0.39	[1] ABE	01L	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Uses the PDG value of $B(B^+ \to J/\psi(1S) K^+) = (1.00 \pm 0.10) \times 10^{-3}$. NODE=S041B49;LINKAGE=A1

$\Gamma(J/\psi(1S) K(1400)^+)/\Gamma(J/\psi(1S) K(1270)^+)$ — $\Gamma_{323}/\Gamma_{322}$

NODE=S041B50

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.30	90	ABE	01L	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(J/\psi(1S) \eta K^+)/\Gamma_{total}$ — Γ_{324}/Γ

NODE=S041Q08

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
12.4±1.4 OUR AVERAGE				
12.7±1.1±1.1	[1] IWASHITA	14	BELL	$e^+e^- \to \Upsilon(4S)$
10.8±2.3±2.4	[1] AUBERT	04Y	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q08;LINKAGE=EP

$\Gamma(\chi_{c1-odd}(3872) K^+,\ \chi_{c1-odd} \to J/\psi\eta)/\Gamma_{total}$ — Γ_{325}/Γ

NODE=S041C89

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<3.8 \times 10^{-6}$	90	IWASHITA	14	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\psi(4160) K^+,\ \psi \to J/\psi\eta)/\Gamma_{total}$ — Γ_{326}/Γ

NODE=S041C90

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<8.7 \times 10^{-7}$	90	AAIJ	22D	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<7.4 \times 10^{-6}$	90	IWASHITA	14	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(J/\psi(1S) \eta' K^+)/\Gamma_{total}$ — Γ_{327}/Γ

NODE=S041Q86

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<8.8	90	[1] XIE	07	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q86;LINKAGE=EP

$\Gamma(J/\psi(1S) \eta' K^+)/\Gamma(\psi(2S) K^+)$ — $\Gamma_{327}/\Gamma_{352}$

NODE=S041A67

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
4.91±0.47±0.30	[1] AAIJ	23AK	LHCB	pp at 7, 8 and 13 TeV

[1] AAIJ 23AK measurements last uncertainty includes ±0.07 uncertainties on the branching fractions of the intermediate resonances. NODE=S041A67;LINKAGE=A

$\Gamma(J/\psi(1S) \phi K^+)/\Gamma_{total}$ — Γ_{328}/Γ

NODE=S041B43

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
5.0 ±0.4 OUR AVERAGE				
5.00±0.37±0.15	LEES	15	BABR	$e^+e^- \to \Upsilon(4S)$
4.4 ±1.4 ±0.5	[1] AUBERT	03O	BABR	$e^+e^- \to \Upsilon(4S)$
$8.8\ ^{+3.5}_{-3.0} \pm 1.3$	[2] ANASTASSOV	00	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B43;LINKAGE=EP
[2] ANASTASSOV 00 finds 10 events on a background of 0.5 ± 0.2. Assumes equal production of B^0 and B^+ at the $\Upsilon(4S)$, a uniform Dalitz plot distribution, isotropic $J/\psi(1S)$ and ϕ decays, and $B(B^+ \to J/\psi(1S)\phi K^+) = B(B^0 \to J/\psi(1S)\phi K^0)$. NODE=S041B43;LINKAGE=AV

$\Gamma(J/\psi(1S)K_1(1650),\ K_1 \to \phi K^+)/\Gamma(J/\psi(1S)\phi K^+)$ — $\Gamma_{329}/\Gamma_{328}$

NODE=S041P34
NODE=S041P34

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.12 \pm 0.10^{+0.17}_{-0.06}}$	[1] AAIJ	17	LHCB	pp at 7, 8 TeV

[1] Measured in amplitude analysis of $B^+ \to J/\psi(1S)\phi K^+$. NODE=S041P34;LINKAGE=A

$\Gamma(J/\psi(1S)K^*(1680)^+,\ K^* \to \phi K^+)/\Gamma(J/\psi(1S)\phi K^+)$ — $\Gamma_{330}/\Gamma_{328}$

NODE=S041P35
NODE=S041P35

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
$\mathbf{6.7 \pm 1.9^{+3.2}_{-3.9}}$	[1] AAIJ	17	LHCB	pp at 7, 8 TeV

[1] Measured in amplitude analysis of $B^+ \to J/\psi(1S)\phi K^+$. NODE=S041P35;LINKAGE=A

$\Gamma(J/\psi(1S)K_2^*(1980),\ K_2^* \to \phi K^+)/\Gamma(J/\psi(1S)\phi K^+)$ — $\Gamma_{331}/\Gamma_{328}$

NODE=S041P36
NODE=S041P36

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
$\mathbf{2.9 \pm 0.8^{+1.7}_{-0.7}}$	[1] AAIJ	17	LHCB	pp at 7, 8 TeV

[1] Measured in amplitude analysis of $B^+ \to J/\psi(1S)\phi K^+$. NODE=S041P36;LINKAGE=A

$\Gamma(J/\psi(1S)K(1830)^+,\ K(1830)^+ \to \phi K^+)/\Gamma(J/\psi(1S)\phi K^+)$ — $\Gamma_{332}/\Gamma_{328}$

NODE=S041P37
NODE=S041P37

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
$\mathbf{2.6 \pm 1.1^{+2.3}_{-1.8}}$	[1] AAIJ	17	LHCB	pp at 7, 8 TeV

[1] Measured in amplitude analysis of $B^+ \to J/\psi(1S)\phi K^+$. NODE=S041P37;LINKAGE=A

$\Gamma(\chi_{c1}(4140)K^+,\ \chi_{c1} \to J/\psi(1S)\phi)/\Gamma(J/\psi(1S)\phi K^+)$ — $\Gamma_{333}/\Gamma_{328}$

NODE=S041T94
NODE=S041T94

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
0.19 ±0.08 OUR AVERAGE					
$0.13 \pm 0.032^{+4.8}_{-2.0}$		[1] AAIJ	17	LHCB	pp at 7, 8 TeV
$0.19 \pm 0.07 \pm 0.04$		[2] ABAZOV	14A	D0	$p\overline{p}$ at 1.96 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.133	90	LEES	15	BABR	$e^+e^- \to \Upsilon(4S)$
<0.07	90	[3] AAIJ	12AA	LHCB	pp at 7 TeV

[1] Measured in amplitude analysis of $B^+ \to J/\psi(1S)\phi K^+$. NODE=S041T94;LINKAGE=B
[2] Reported a threshold enhancement in the $J/\psi\phi$ mass distribution consistent with the $\chi_{c1}(4140)$ state with a statistical significance of 3.1 standard deviations. NODE=S041T94;LINKAGE=A
[3] Branching fractions are normalized to 382 ± 22 events of $B^+ \to J/\psi\phi K^+$. NODE=S041T94;LINKAGE=AA

$\Gamma(\chi_{c1}(4274)K^+,\ \chi_{c1} \to J/\psi(1S)\phi)/\Gamma(J/\psi(1S)\phi K^+)$ — $\Gamma_{334}/\Gamma_{328}$

NODE=S041T95
NODE=S041T95

VALUE (units 10^{-2})	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{7.1 \pm 2.5^{+3.5}_{-2.4}}$		[1] AAIJ	17	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<18.1	90	LEES	15	BABR	$e^+e^- \to \Upsilon(4S)$
< 8	90	[2] AAIJ	12AA	LHCB	Repl. by AAIJ 17

[1] Measured in amplitude analysis of $B^+ \to J/\psi(1S)\phi K^+$. NODE=S041T95;LINKAGE=A
[2] Branching fractions are normalized to 382 ± 22 events of $B^+ \to J/\psi\phi K^+$. NODE=S041T95;LINKAGE=AA

$\Gamma(\chi_{c0}(4500)K^+,\ \chi_{c0} \to J/\psi(1S)\phi)/\Gamma(J/\psi(1S)\phi K^+)$ — $\Gamma_{335}/\Gamma_{328}$

NODE=S041P32
NODE=S041P32

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
$\mathbf{6.6 \pm 2.4^{+3.5}_{-2.3}}$	[1] AAIJ	17	LHCB	pp at 7, 8 TeV

[1] Measured in amplitude analysis of $B^+ \to J/\psi(1S)\phi K^+$. NODE=S041P32;LINKAGE=A

$\Gamma(\chi_{c0}(4700)K^+,\ \chi_{c0} \to J/\psi(1S)\phi)/\Gamma(J/\psi(1S)\phi K^+)$ — $\Gamma_{336}/\Gamma_{328}$

NODE=S041P33
NODE=S041P33

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.12 \pm 0.05^{+0.09}_{-0.05}}$	[1] AAIJ	17	LHCB	pp at 7, 8 TeV

[1] Measured in amplitude analysis of $B^+ \to J/\psi(1S)\phi K^+$. NODE=S041P33;LINKAGE=A

$\Gamma(J/\psi(1S)\omega K^+)/\Gamma_{total}$ — Γ_{337}/Γ

NODE=S041C46
NODE=S041C46

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
$3.2\pm0.1^{+0.6}_{-0.3}$	[1] DEL-AMO-SA..10B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$3.5\pm0.2\pm0.4$	[1] AUBERT 08W	BABR	Repl. by DEL-AMO-SANCHEZ 10B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C46;LINKAGE=EP

$\Gamma(\chi_{c0}(3915)K^+,\ \chi_{c0}\to J/\psi\omega)/\Gamma_{total}$ — Γ_{338}/Γ

NODE=S041C20
NODE=S041C20

VALUE (units 10^{-5})	DOCUMENT ID	TECN	COMMENT
$3.0^{+0.7}_{-0.6}{}^{+0.5}_{-0.3}$	[1] DEL-AMO-SA..10B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$4.9^{+1.0}_{-0.9}\pm0.5$	[1] AUBERT 08W	BABR	Repl. by DEL-AMO-SANCHEZ 10B

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041C20;LINKAGE=EP

$\Gamma(\chi_{c0}(3915)K^+,\ \chi_{c0}\to p\overline{p})/\Gamma_{total}$ — Γ_{320}/Γ

NODE=S041BA3
NODE=S041BA3

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
$<7.1\times10^{-8}$	95	[1] AAIJ 13S	LHCB	pp at 7 TeV

[1] Measured relative to $B^+ \to J/\psi K^+$ decay with charmonia reconstructed in $p\overline{p}$ final state and using B($B^+ \to J/\psi K^+$) = $(1.013 \pm 0.034)\times10^{-3}$ and B($J/\psi \to p\overline{p}$) = $(2.17 \pm 0.07)\times10^{-3}$.

NODE=S041BA3;LINKAGE=AA

$\Gamma(J/\psi(1S)\pi^+)/\Gamma_{total}$ — Γ_{339}/Γ

NODE=S041B91
NODE=S041B91

VALUE	DOCUMENT ID	TECN	COMMENT
$(4.1\pm0.4)\times10^{-5}$ OUR FIT Error includes scale factor of 2.5. [$(3.92 \pm 0.09)\times10^{-5}$ OUR 2025 FIT]			
$(3.8\pm0.6\pm0.3)\times10^{-5}$	[1] ABE 03B	BELL	$e^+e^- \to \Upsilon(4S)$

NEW

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B91;LINKAGE=EP

$\Gamma(J/\psi(1S)\pi^+)/\Gamma(J/\psi(1S)K^+)$ — $\Gamma_{339}/\Gamma_{316}$

NODE=S041S97
NODE=S041S97

VALUE (units 10^{-2})	EVTS	DOCUMENT ID	TECN	COMMENT
4.1 ±0.4 OUR FIT Error includes scale factor of 2.7. [$(3.85 \pm 0.04)\times10^{-2}$ OUR 2025 FIT]				
4.1 ±0.4 OUR AVERAGE Error includes scale factor of 2.3. See the ideogram below. [$(3.85 \pm 0.04)\times10^{-2}$ OUR 2025 AVERAGE]				
$3.846\pm0.18\pm0.018$		[1] AAIJ 25I	LHCB	pp at 7, 8, 13 TeV
$3.5\pm0.3\pm1.2$		AABOUD 16L	ATLS	pp at 7, 8 TeV
$4.86\pm0.82\pm0.15$		ABULENCIA 09	CDF	$p\overline{p}$ at 1.96 TeV
$5.37\pm0.45\pm0.11$		AUBERT 04P	BABR	$e^+e^- \to \Upsilon(4S)$
$5.0^{+1.9}_{-1.7}\pm0.1$		ABE 96R	CDF	$p\overline{p}$ 1.8 TeV
5.2 ± 2.4		BISHAI 96	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$3.852\pm0.022\pm0.018$		AAIJ 25I	LHCB	pp at 13 TeV
$3.83\pm0.03\pm0.03$		AAIJ 17O	LHCB	Repl. by AAIJ 25I
$3.83\pm0.11\pm0.07$		AAIJ 12AC	LHCB	Repl. by AAIJ 17O
$3.91\pm0.78\pm0.19$		AUBERT 02F	BABR	Repl. by AUBERT 04P
4.3 ± 2.3	5	[2] ALEXANDER 95	CLE2	Sup. by BISHAI 96

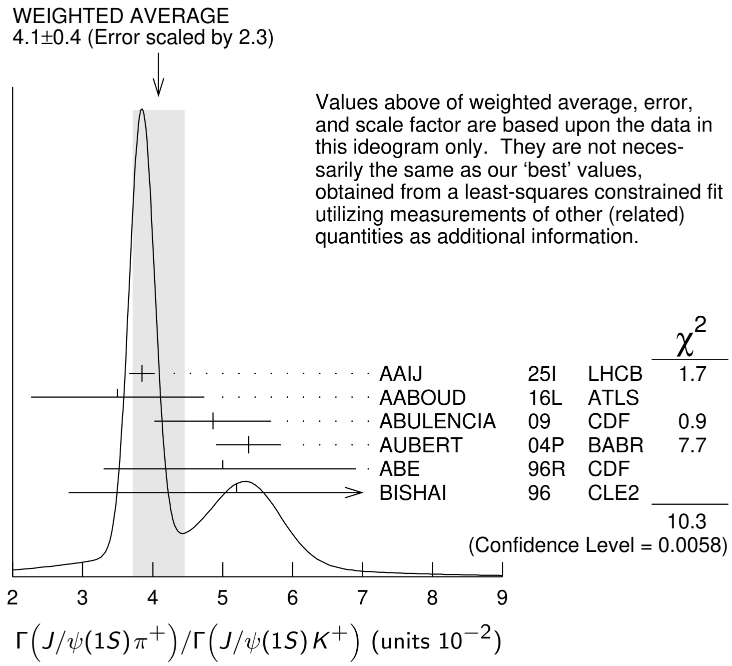
NEW

NEW

OCCUR=2

[1] AAIJ 25I measurement combined with the one referred in AAIJ 17O.
[2] Assumes equal production of B^+B^- and $B^0\overline{B}^0$ on $\Upsilon(4S)$.

NODE=S041S97;LINKAGE=C
NODE=S041S97;LINKAGE=A



$\Gamma(J/\psi(1S)\pi^+\pi^+\pi^+\pi^-\pi^-)/\Gamma(\psi(2S)K^+)$ — $\Gamma_{340}/\Gamma_{352}$

NODE=S041P30
NODE=S041P30

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
1.88±0.17±0.09	[1] AAIJ	17K	LHCB	pp at 7 and 8 TeV

[1] Contains also the contribution from $B^+ \to \psi(2S)[\to J/\psi\pi^+\pi^-]\,\pi^+\pi^+\pi^-$ decays.

NODE=S041P30;LINKAGE=A

$\Gamma(\psi(2S)\pi^+\pi^+\pi^-)/\Gamma(\psi(2S)K^+)$ — $\Gamma_{341}/\Gamma_{352}$

NODE=S041P31
NODE=S041P31

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
3.04±0.50±0.26	AAIJ	17K	LHCB	pp at 7 and 8 TeV

$\Gamma(J/\psi(1S)\rho^+)/\Gamma_{total}$ — Γ_{342}/Γ

NODE=S041S99
NODE=S041S99

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
4.1 ±0.5 OUR AVERAGE		Error includes scale factor of 1.4.			
$3.81^{+0.25}_{-0.24}\pm0.35$		AAIJ	19O	LHCB	pp at 7 and 8 TeV
5.0 ±0.7 ±0.3		[1] AUBERT	07AC	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<77	90	BISHAI	96	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041S99;LINKAGE=EP

$\Gamma(J/\psi(1S)\pi^+\pi^0\,\text{nonresonant})/\Gamma_{total}$ — Γ_{343}/Γ

NODE=S041Q87
NODE=S041Q87

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
<0.73	90	[1] AUBERT	07AC	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041Q87;LINKAGE=EP

$\Gamma(J/\psi(1S)a_1(1260)^+)/\Gamma_{total}$ — Γ_{344}/Γ

NODE=S041B1
NODE=S041B1

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.2 × 10^{-3}	90	BISHAI	96	CLE2	$e^+e^- \to \Upsilon(4S)$

$\Gamma(J/\psi(1S)p\overline{p}\pi^+)/\Gamma_{total}$ — Γ_{345}/Γ

NODE=S041T98
NODE=S041T98

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<5.0 × 10^{-7}	90	[1] AAIJ	13Z	LHCB	pp at 7 TeV

[1] Uses B($B^0_s \to J/\psi(1S)\pi^+\pi^-$) = (1.98 ± 0.20) × 10^{-4}.

NODE=S041T98;LINKAGE=A

$\Gamma(J/\psi(1S)p\overline{\Lambda})/\Gamma_{total}$ — Γ_{346}/Γ

NODE=S041C1
NODE=S041C1

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
14.6±1.2 OUR AVERAGE					
15.1±0.8±1.0		[1] SIRUNYAN	19CM	CMS	pp at 8 TeV
$11.7\pm2.8^{+1.8}_{-2.3}$		[2] XIE	05	BELL	$e^+e^- \to \Upsilon(4S)$
$12\ ^{+9}_{-6}$		[2] AUBERT	03K	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<41	90	ZANG	04	BELL	$e^+e^- \to \Upsilon(4S)$

[1] SIRUNYAN 19CM reports B($B^+ \to J/\psi \overline{\Lambda} p$)/B($B^+ \to J/\psi K^*(892)$) = (1.054 ± 0.057 ± 0.035 ± 0.011) × 10^{-2} and rescaled with the best value of B($B^+ \to J/\psi K^*(892)$) =(1.43 ± 0.08) × 10^{-3}, where the last uncertainty is the uncertainty from the branching fractions of $\overline{\Lambda}$ and $K^*(892)$ to reconstructed final states. NODE=S041C1;LINKAGE=A

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C1;LINKAGE=EP

$\Gamma(J/\psi(1S)\overline{\Sigma}^0 p)/\Gamma_{total}$ — Γ_{347}/Γ

NODE=S041C11
NODE=S041C11

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.1 × 10^{-5}	90	[1] XIE	05	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C11;LINKAGE=EP

$\Gamma(J/\psi(1S) D^+)/\Gamma_{total}$ — Γ_{348}/Γ

NODE=S041Q44
NODE=S041Q44

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<12 × 10^{-5}	90	[1] AUBERT	05U	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q44;LINKAGE=EP

$\Gamma(J/\psi(1S)\overline{D}^0 \pi^+)/\Gamma_{total}$ — Γ_{349}/Γ

NODE=S041Q45
NODE=S041Q45

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
<2.5	90	[1] ZHANG	05B	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<5.2	90	[1] AUBERT	05R	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q45;LINKAGE=EP

$\Gamma(J/\psi(1S) D_s^+)/\Gamma_{total}$ — Γ_{350}/Γ

NODE=S041D49
NODE=S041D49

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<2.8 × 10^{-7}	90	AAIJ	24F	LHCB	pp at 7, 8, and 13 TeV

$\Gamma(\psi(2S)\pi^+)/\Gamma_{total}$ — Γ_{351}/Γ

NODE=S041C08
NODE=S041C08

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
2.44±0.22±0.20	[1] BHARDWAJ	08	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C08;LINKAGE=EP

$\Gamma(\psi(2S)\pi^+)/\Gamma(\psi(2S) K^+)$ — $\Gamma_{351}/\Gamma_{352}$

NODE=S041C09
NODE=S041C09

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
3.97±0.29 OUR AVERAGE				
3.95±0.40±0.12	AAIJ	12AC	LHCB	pp at 7 TeV
3.99±0.36±0.17	BHARDWAJ	08	BELL	$e^+ e^- \to \Upsilon(4S)$

$\Gamma(\psi(2S) K^+)/\Gamma_{total}$ — Γ_{352}/Γ

NODE=S041R20
NODE=S041R20

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
6.24± 0.21 OUR FIT					
6.40± 0.34 OUR AVERAGE					
4.6 ± 1.0 ±0.7		[1] LEES	20C	BABR	$e^+ e^- \to \Upsilon(4S)$
6.4 ± 1.0 ±0.4		[1] KATO	18	BELL	$e^+ e^- \to \Upsilon(4S)$
6.65± 0.17±0.55		[2] GULER	11	BELL	$e^+ e^- \to \Upsilon(4S)$
6.17± 0.32±0.44		[2] AUBERT	05J	BABR	$e^+ e^- \to \Upsilon(4S)$
7.8 ± 0.7 ±0.9		[2] RICHICHI	01	CLE2	$e^+ e^- \to \Upsilon(4S)$
18 ± 8 ±4	5	[2] ALBRECHT	90J	ARG	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
4.9 ± 1.6 ±0.4		[1] AUBERT	06E	BABR	Repl. by LEES 20C
6.9 ± 0.6		[2] ABE	03B	BELL	Repl. by GULER 11
6.4 ± 0.5 ±0.8		[2] AUBERT	02	BABR	Repl. by AUBERT 05J
6.1 ± 2.3 ±0.9	7	[2] ALAM	94	CLE2	Repl. by RICHICHI 01
<5 at 90% CL		[2] BORTOLETTO	92	CLEO	$e^+ e^- \to \Upsilon(4S)$
22 ±17	3	[3] ALBRECHT	87D	ARG	$e^+ e^- \to \Upsilon(4S)$

[1] Measures absolute branching fractions using a missing-mass technique. NODE=S041R20;LINKAGE=AT

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R20;LINKAGE=EP

[3] ALBRECHT 87D assume $B^+ B^- / B^0 \overline{B}^0$ ratio is 55/45. Superseded by ALBRECHT 90J. NODE=S041R20;LINKAGE=C

$\Gamma(\psi(2S)K^+)/\Gamma(J/\psi(1S)K^+)$ $\Gamma_{352}/\Gamma_{316}$

NODE=S041B46
NODE=S041B46

VALUE		DOCUMENT ID		TECN	COMMENT
0.612±0.019 OUR FIT					
0.605±0.023 OUR AVERAGE					
0.58 ±0.11 ±0.02	[1]	AAIJ	13S	LHCB	pp at 7 TeV
0.607±0.018±0.017	[2,3]	AAIJ	12L	LHCB	pp at 7 TeV
0.63 ±0.05 ±0.08		ABAZOV	09Y	D0	$p\overline{p}$ at 1.96 TeV
0.558±0.082±0.056		ABE	98O	CDF	$p\overline{p}$ 1.8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.64 ±0.06 ±0.07	[4]	AUBERT	02	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] AAIJ 13S reports $[\Gamma(B^+ \rightarrow \psi(2S)K^+)/\Gamma(B^+ \rightarrow J/\psi(1S)K^+)] \times [B(\psi(2S) \rightarrow p\overline{p})] / [B(J/\psi(1S) \rightarrow p\overline{p})] = 0.080 \pm 0.012 \pm 0.009$ which we multiply or divide by our best values $B(\psi(2S) \rightarrow p\overline{p}) = (2.94 \pm 0.09) \times 10^{-4}$, $B(J/\psi(1S) \rightarrow p\overline{p}) = (2.121 \pm 0.029) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best values. NODE=S041B46;LINKAGE=AB

[2] AAIJ 12L reports $0.594 \pm 0.006 \pm 0.016 \pm 0.015$ from a measurement of $[\Gamma(B^+ \rightarrow \psi(2S)K^+)/\Gamma(B^+ \rightarrow J/\psi(1S)K^+)] \times [B(J/\psi(1S) \rightarrow e^+e^-)] / [B(\psi(2S) \rightarrow e^+e^-)]$ assuming $B(J/\psi(1S) \rightarrow e^+e^-) = (5.94 \pm 0.06) \times 10^{-2}$, $B(\psi(2S) \rightarrow e^+e^-) = (7.72 \pm 0.17) \times 10^{-3}$, which we rescale to our best values $B(J/\psi(1S) \rightarrow e^+e^-) = (5.971 \pm 0.032) \times 10^{-2}$, $B(\psi(2S) \rightarrow e^+e^-) = (7.93 \pm 0.22) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best values. NODE=S041B46;LINKAGE=AA

[3] Assumes $B(J/\psi \rightarrow \mu^+\mu^-) / B(\psi(2S) \rightarrow \mu^+\mu^-) = B(J/\psi \rightarrow e^+e^-) / B(\psi(2S) \rightarrow e^+e^-) = 7.69 \pm 0.19$. NODE=S041B46;LINKAGE=AI

[4] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B46;LINKAGE=EP

$\Gamma(\psi(2S)K^*(892)^+)/\Gamma_{total}$ Γ_{353}/Γ

NODE=S041R66
NODE=S041R66

VALUE (units 10^{-4})	CL%		DOCUMENT ID		TECN	COMMENT
6.7 ±1.4 OUR AVERAGE	Error includes scale factor of 1.3.					
5.92±0.85±0.89		[1]	AUBERT	05J	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
9.2 ±1.9 ±1.2		[1]	RICHICHI	01	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<30	90	[1]	ALAM	94	CLE2	Repl. by RICHICHI 01
<35	90	[1]	BORTOLETTO	92	CLEO	$e^+e^- \rightarrow \Upsilon(4S)$
<49	90	[1]	ALBRECHT	90J	ARG	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R66;LINKAGE=EP

$\Gamma(\psi(2S)K^*(892)^+)/\Gamma(\psi(2S)K^+)$ $\Gamma_{353}/\Gamma_{352}$

NODE=S041Q75
NODE=S041Q75

VALUE	DOCUMENT ID		TECN	COMMENT
0.96±0.15±0.09	AUBERT	05J	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

$\Gamma(\psi(2S)K^0\pi^+)/\Gamma_{total}$ Γ_{354}/Γ

NODE=S041C75
NODE=S041C75

VALUE (units 10^{-3})		DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.588±0.034	[1]	AUBERT	09AA	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Does not report systematic uncertainties. NODE=S041C75;LINKAGE=AU

$\Gamma(\psi(2S)K^+\pi^+\pi^-)/\Gamma_{total}$ Γ_{355}/Γ

NODE=S041R67
NODE=S041R67

VALUE (units 10^{-4})	EVTS		DOCUMENT ID		TECN	COMMENT
4.3 ± 0.5 OUR AVERAGE						
4.31± 0.20±0.50		[1]	GULER	11	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
19 ±11 ±4	3	[1]	ALBRECHT	90J	ARG	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R67;LINKAGE=EP

$\Gamma(\chi_{c0}(4500)K^+,\ \chi_{c0}(4500) \rightarrow \psi(2S)\pi^+\pi^-)/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{356}/\Gamma_{355}$

NODE=S041D65
NODE=S041D65

VALUE		DOCUMENT ID		TECN	COMMENT
0.1845±0.0131±0.0292	[1,2]	AAIJ	25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \rightarrow \psi(2S)K^+\pi^+\pi^-$. NODE=S041D65;LINKAGE=A

[2] AAIJ 25Q identifies $T^*_{c\overline{c}0}(4475)$ as $\chi_{c0}(4500)$. NODE=S041D65;LINKAGE=B

$\Gamma(\chi_{c1}(4685)K^+,\ \chi_{c1}(4685) \to \psi(2S)\pi^+\pi^-)/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{357}/\Gamma_{355}$

NODE=S041D66
NODE=S041D66

VALUE	DOCUMENT ID	TECN	COMMENT
0.0289±0.0045±0.0045	[1,2] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S)K^+\pi^+\pi^-$. NODE=S041D66;LINKAGE=A
[2] AAIJ 25Q identifies $T_{c\overline{c}1}(4650)$ as $\chi_{c1}(4685)$. NODE=S041D66;LINKAGE=B

$\Gamma(\chi_{c0}(4700)K^+,\ \chi_{c0}(4700) \to \psi(2S)\pi^+\pi^-)/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{358}/\Gamma_{355}$

NODE=S041D67
NODE=S041D67

VALUE	DOCUMENT ID	TECN	COMMENT
0.0173±0.0028±0.0040	[1,2] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S)K^+\pi^+\pi^-$. NODE=S041D67;LINKAGE=A
[2] refAAIJ 2025Q identifies $T^*_{c\overline{c}0}(4710)$ as $\chi_{c0}(4700)$. NODE=S041D67;LINKAGE=B

$\Gamma(\psi(2S)K^*(1410)^+,\ K^*(1410)^+ \to K^+\pi^+\pi^-)/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{359}/\Gamma_{355}$

NODE=S041D69
NODE=S041D69

VALUE	DOCUMENT ID	TECN	COMMENT
0.0179±0.0035±0.0074	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S)K^+\pi^+\pi^-$. NODE=S041D69;LINKAGE=A

$\Gamma(\psi(2S)K^*(1680)^+,\ K^*(1680)^+ \to K^+\pi^+\pi^-)/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{360}/\Gamma_{355}$

NODE=S041D70
NODE=S041D70

VALUE	DOCUMENT ID	TECN	COMMENT
0.0815±0.0131±0.0351	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S)K^+\pi^+\pi^-$. NODE=S041D70;LINKAGE=A

$\Gamma(\psi(2S)K_1(1270)^+,\ K_1(1270)^+ \to K^+\pi^+\pi^-)/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{361}/\Gamma_{355}$

NODE=S041D71
NODE=S041D71

VALUE	DOCUMENT ID	TECN	COMMENT
0.0760±0.0085±0.0135	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S)K^+\pi^+\pi^-$. NODE=S041D71;LINKAGE=A

$\Gamma([\psi(2S)K_1(1270)^+,\ K_1(1270)^+ \to K^+\pi^+\pi^-]_{P-wave})/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{362}/\Gamma_{355}$

NODE=S041D72
NODE=S041D72

VALUE	DOCUMENT ID	TECN	COMMENT
0.0752±0.0060±0.0108	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S)K^+\pi^+\pi^-$. NODE=S041D72;LINKAGE=A

$\Gamma([\psi(2S)K_1(1270)^+,\ K_1(1270)^+ \to K^+\pi^+\pi^-]_{D-wave})/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{363}/\Gamma_{355}$

NODE=S041D73
NODE=S041D73

VALUE	DOCUMENT ID	TECN	COMMENT
0.0681±0.0045±0.0118	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S)K^+\pi^+\pi^-$. NODE=S041D73;LINKAGE=A

$\Gamma(\psi(2S)K_1(1400)^+,\ K_1(1400)^+ \to K^+\pi^+\pi^-)/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{364}/\Gamma_{355}$

NODE=S041D74
NODE=S041D74

VALUE	DOCUMENT ID	TECN	COMMENT
0.0578±0.0062±0.0092	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S)K^+\pi^+\pi^-$. NODE=S041D74;LINKAGE=A

$\Gamma([\psi(2S)K_1(1400)^+,\ K_1(1400)^+ \to K^+\pi^+\pi^-]_{P-wave})/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{365}/\Gamma_{355}$

NODE=S041D75
NODE=S041D75

VALUE	DOCUMENT ID	TECN	COMMENT
0.0048±0.0018±0.0040	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S)K^+\pi^+\pi^-$. NODE=S041D75;LINKAGE=A

$\Gamma(\psi(2S)K_1(1460)^+,\ K_1(1460)^+ \to K^+\pi^+\pi^-)/\Gamma(\psi(2S)K^+\pi^+\pi^-)$ $\Gamma_{366}/\Gamma_{355}$

NODE=S041D76
NODE=S041D76

VALUE	DOCUMENT ID	TECN	COMMENT
0.0526±0.0048±0.0087	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S)K^+\pi^+\pi^-$. NODE=S041D76;LINKAGE=A

$\Gamma(\psi(2S) K_2^*(1430)^+,\ K_2^*(1430)^+ \to K^+\pi^+\pi^-)/\Gamma(\psi(2S) K^+\pi^+\pi^-)$ $\Gamma_{367}/\Gamma_{355}$

NODE=S041D77
NODE=S041D77

VALUE	DOCUMENT ID	TECN	COMMENT
0.0435±0.0029±0.0026	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S) K^+\pi^+\pi^-$.

NODE=S041D77;LINKAGE=A

$\Gamma(T_{c\overline{c}1}(4200)^+ K^*(892)^0 \to \psi(2S) K^+\pi^+\pi^-)/\Gamma(\psi(2S) K^+\pi^+\pi^-)$ $\Gamma_{368}/\Gamma_{355}$

NODE=S041D78
NODE=S041D78

VALUE	DOCUMENT ID	TECN	COMMENT
0.0402±0.0088±0.0101	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S) K^+\pi^+\pi^-$.

NODE=S041D78;LINKAGE=A

$\Gamma([T_{c\overline{c}1}(4200)^+ K^*(892)^0 \to \psi(2S) K^+\pi^+\pi^-]_{P-wave})/\Gamma(\psi(2S) K^+\pi^+\pi^-)$ $\Gamma_{369}/\Gamma_{355}$

NODE=S041D79
NODE=S041D79

VALUE	DOCUMENT ID	TECN	COMMENT
0.0460±0.0054±0.0217	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S) K^+\pi^+\pi^-$.

NODE=S041D79;LINKAGE=A

$\Gamma([T_{c\overline{c}1}(4200)^+ K^*(892)^0 \to \psi(2S) K^+\pi^+\pi^-]_{D-wave})/\Gamma(\psi(2S) K^+\pi^+\pi^-)$ $\Gamma_{370}/\Gamma_{355}$

NODE=S041D80
NODE=S041D80

VALUE	DOCUMENT ID	TECN	COMMENT
0.0278±0.0033±0.0061	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S) K^+\pi^+\pi^-$.

NODE=S041D80;LINKAGE=A

$\Gamma(T_{c\overline{c}1}(4430)^+ K^*(892)^0 \to \psi(2S) K^+\pi^+\pi^-)/\Gamma(\psi(2S) K^+\pi^+\pi^-)$ $\Gamma_{371}/\Gamma_{355}$

NODE=S041D81
NODE=S041D81

VALUE	DOCUMENT ID	TECN	COMMENT
0.0075±0.0043±0.0224	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S) K^+\pi^+\pi^-$.

NODE=S041D81;LINKAGE=A

$\Gamma(T_{c\overline{c}1}(4430)^+ [K^+\pi^-]_{S-wave} \to \psi(2S) K^+\pi^+\pi^-)/\Gamma(\psi(2S) K^+\pi^+\pi^-)$ $\Gamma_{372}/\Gamma_{355}$

NODE=S041D82
NODE=S041D82

VALUE	DOCUMENT ID	TECN	COMMENT
0.0341±0.0054±0.0078	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S) K^+\pi^+\pi^-$.

NODE=S041D82;LINKAGE=A

$\Gamma(T_{c\overline{cs}1}(4600)^0 \pi^+,\ T_{c\overline{cs}1}(4600)^0 \to \psi(2S) K^+\pi^-)/\Gamma(\psi(2S) K^+\pi^+\pi^-)$ $\Gamma_{373}/\Gamma_{355}$

NODE=S041D83
NODE=S041D83

VALUE	DOCUMENT ID	TECN	COMMENT
0.0442±0.0098±0.0217	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S) K^+\pi^+\pi^-$.

NODE=S041D83;LINKAGE=A

$\Gamma(T_{c\overline{cs}1}(4900)^0 \pi^+,\ T_{c\overline{cs}1}(4900)^0 \to \psi(2S) K^+\pi^-)/\Gamma(\psi(2S) K^+\pi^+\pi^-)$ $\Gamma_{374}/\Gamma_{355}$

NODE=S041D84
NODE=S041D84

VALUE	DOCUMENT ID	TECN	COMMENT
0.0260±0.0066±0.0194	[1] AAIJ 25Q	LHCB	pp at 7, 8 and 13 TeV

[1] Measured in amplitude analysis of $B^+ \to \psi(2S) K^+\pi^+\pi^-$.

NODE=S041D84;LINKAGE=A

$\Gamma(\psi(2S)\phi(1020) K^+)/\Gamma_{total}$ Γ_{375}/Γ

NODE=S041P29
NODE=S041P29

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
3.4±0.5 OUR AVERAGE			
[(4.0 ± 0.7) × 10^{-6} OUR 2025 AVERAGE]			
3.1±0.5±0.2	[1] AAIJ 25P	LHCB	pp at 7, 8, 13 TeV
4.0±0.4±0.6	[2,3] KHACHATRY...17C	CMS	pp at 8 TeV

NEW

[1] AAIJ 25P reports $[\Gamma(B^+ \to \psi(2S)\phi(1020)K^+)/\Gamma_{total}]$ / $[B(B^+ \to J/\psi(1S)\phi K^+)]$ $= 0.061 \pm 0.004 \pm 0.009$ which we multiply by our best value $B(B^+ \to J/\psi(1S)\phi K^+)$ $= (5.0 \pm 0.4) \times 10^{-5}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041P29;LINKAGE=D

[2] Measured using $B^+ \to \psi(2S) K^+$ as a normalization channel. The second error represents total systematic uncertainties including those from branching fractions which were taken from PDG 16 as $B(\phi \to K^+K^-) = 0.489 \pm 0.005$ and $B(B^+ \to \psi(2S) K^+)$ $= (6.26 \pm 0.24) \times 10^{-4}$.

NODE=S041P29;LINKAGE=A

[3] An upper limit on the fraction of the non-ϕ component in $B^+ \to \psi(2S) K^+ K^- K^+$ decays is set as 0.26 at the 95% confidence level.

NODE=S041P29;LINKAGE=B

$\Gamma(\psi(3770)K^+)/\Gamma_{total}$ — Γ_{376}/Γ

NODE=S041Q13

VALUE (units 10^{-3})	CL%	DOCUMENT ID	TECN	COMMENT
0.43±0.11 OUR AVERAGE				
0.32±0.20±0.05±0.01		[1,2] LEES 20C	BABR	$e^+e^- \to \Upsilon(4S)$
0.48±0.11±0.07		[3] CHISTOV 04	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<0.23	90	[2] KATO 18	BELL	$e^+e^- \to \Upsilon(4S)$
3.5 ±2.5 ±0.3		[2] AUBERT 06E	BABR	Repl. by LEES 20C

[1] LEES 20C measurement's last uncertainty is due to the used B($B^\pm \to K^\pm J/\psi$) value. NODE=S041Q13;LINKAGE=A

[2] Measures absolute branching fractions using a missing-mass technique. NODE=S041Q13;LINKAGE=AT

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q13;LINKAGE=CH

$\Gamma(\psi(3770)K^+)/\Gamma(D^-D^+K^+)$ — $\Gamma_{376}/\Gamma_{228}$

NODE=S041A20

VALUE	DOCUMENT ID	TECN	COMMENT
$0.352 \pm 0.035^{+0.034}_{-0.031}$	[1,2] AAIJ 20AI	LHCB	pp at 7, 8, 13 TeV

[1] AAIJ 20AI reports $[\Gamma(B^+ \to \psi(3770)K^+)/\Gamma(B^+ \to D^-D^+K^+)] \times [B(\psi(3770) \to D^+D^-)] = (14.5 \pm 1.2 \pm 0.8) \times 10^{-2}$ which we divide by our best value $B(\psi(3770) \to D^+D^-) = (41 \pm 4) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041A20;LINKAGE=A

[2] Measured in Dalitz plot analysis of $B^+ \to D^-D^+K^+$ decays. NODE=S041A20;LINKAGE=B

$\Gamma(\psi(3770)K+,\psi \to D^0\overline{D}^0)/\Gamma_{total}$ — Γ_{377}/Γ

NODE=S041Q14

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
1.5 ±0.5 OUR AVERAGE	Error includes scale factor of 1.4.		
1.18±0.41±0.15	[1] LEES 15C	BABR	$e^+e^- \to \Upsilon(4S)$
2.2 ±0.5 ±0.3	[1] BRODZICKA 08	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
1.41±0.30±0.22	[1] AUBERT 08B	BABR	Repl. by LEES 15C
3.4 ±0.8 ±0.5	[1] CHISTOV 04	BELL	Repl. by BRODZICKA 08

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q14;LINKAGE=EP

$\Gamma(\psi(3770)K+,\psi \to D^+D^-)/\Gamma_{total}$ — Γ_{378}/Γ

NODE=S041Q15

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
0.94±0.35 OUR AVERAGE			
0.84±0.32±0.21	[1] AUBERT 08B	BABR	$e^+e^- \to \Upsilon(4S)$
1.4 ±0.8 ±0.2	[1] CHISTOV 04	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q15;LINKAGE=EP

$\Gamma(\psi(3770)K^+,\ \psi \to p\overline{p})/\Gamma_{total}$ — Γ_{379}/Γ

NODE=S041P44

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
$<2 \times 10^{-7}$	95	[1] AAIJ 17AD	LHCB	pp at 7 and 8 TeV

[1] Measured relative to $B^+ \to J/\psi K^+$ decay with charmonia reconstructed in $p\overline{p}$ final state and using $B(B^+ \to J/\psi K^+) \times B(J/\psi \to p\overline{p}) = (2.17 \pm 0.08) \times 10^{-6}$. NODE=S041P44;LINKAGE=A

$\Gamma(\psi(3770)K^+,\ \psi \to J/\psi\eta)/\Gamma_{total}$ — Γ_{380}/Γ

NODE=S041A57

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
$<4.6 \times 10^{-7}$	90	AAIJ 22D	LHCB	pp at 7, 8, 13 TeV

$\Gamma(\psi(4040)K^+)/\Gamma_{total}$ — Γ_{381}/Γ

NODE=S041C88

VALUE (units 10^{-3})	CL%	DOCUMENT ID	TECN	COMMENT
1.6 ±0.5±0.2		[1] AAIJ 22D	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<3.0	90	[2] IWASHITA 14	BELL	$e^+e^- \to \Upsilon(4S)$
<0.13	90	AAIJ 13BC	LHCB	pp at 7, 8 TeV

[1] AAIJ 22D reports $[\Gamma(B^+ \to \psi(4040)K^+)/\Gamma_{total}] \times [B(\psi(4040) \to J/\psi\eta)] = (8.53 \pm 2.35 \pm 0.30) \times 10^{-6}$ which we divide by our best value $B(\psi(4040) \to J/\psi\eta) = (5.2 \pm 0.7) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C88;LINKAGE=B

[2] IWASHITA 14 reports $[\Gamma(B^+ \to \psi(4040)K^+)/\Gamma_{total}] \times [B(\psi(4040) \to J/\psi\eta)] < 15.5 \times 10^{-6}$ which we divide by our best value $B(\psi(4040) \to J/\psi\eta) = 5.2 \times 10^{-3}$. NODE=S041C88;LINKAGE=A

$\Gamma(\psi(4040)K^+,\ \psi \to D^+D^-)/\Gamma(D^-D^+K^+)$ — $\Gamma_{382}/\Gamma_{228}$

NODE=S041A23

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
5.0±1.3±0.4	[1] AAIJ	20AI	LHCB	pp at 7, 8, 13 TeV

[1] Measured in Dalitz plot analysis of $B^+ \to D^- D^+ K^+$ decays. NODE=S041A23;LINKAGE=A

$\Gamma(\psi(4160)K^+)/\Gamma_{\text{total}}$ — Γ_{383}/Γ

NODE=S041T97

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
$5.1^{+1.3}_{-1.2}\pm2.4$	[1] AAIJ	13BC	LHCB	pp at 7, 8 TeV

[1] AAIJ 13BC reports $[\Gamma(B^+ \to \psi(4160)K^+)]/\Gamma_{\text{total}}] \times B(\psi(4160) \to \mu^+\mu^-) = (3.5^{+0.9}_{-0.8}) \times 10^{-9}$ which we devide by our best value $B(\psi(4160) \to e^+e^-) = (6.9 \pm 3.3) \times 10^{-6}$ assuming lepton universality. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041T97;LINKAGE=AA

$\Gamma(\psi(4160)K^+,\ \psi \to \overline{D}^0 D^0)/\Gamma_{\text{total}}$ — Γ_{384}/Γ

NODE=S041C87

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
0.84±0.41±0.33	[1] LEES	15C	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C87;LINKAGE=EP

$\Gamma(\psi(4160)K^+,\ \psi \to D^+D^-)/\Gamma(D^-D^+K^+)$ — $\Gamma_{385}/\Gamma_{228}$

NODE=S041A24

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
6.6±1.5±1.2	[1] AAIJ	20AI	LHCB	pp at 7, 8, 13 TeV

[1] Measured in Dalitz plot analysis of $B^+ \to D^- D^+ K^+$ decays. NODE=S041A24;LINKAGE=A

$\Gamma(\psi(4415)K^+,\ \psi \to D^+D^-)/\Gamma(D^-D^+K^+)$ — $\Gamma_{386}/\Gamma_{228}$

NODE=S041A25

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
9.2±1.4±1.5	[1] AAIJ	20AI	LHCB	pp at 7, 8, 13 TeV

[1] Measured in Dalitz plot analysis of $B^+ \to D^- D^+ K^+$ decays. NODE=S041A25;LINKAGE=A

$\Gamma(\psi(4415)K^+,\ \psi \to J/\psi\eta)/\Gamma_{\text{total}}$ — Γ_{387}/Γ

NODE=S041A59

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<9.6 \times 10^{-7}$	90	AAIJ	22D	LHCB	pp at 7, 8, 13 TeV

$\Gamma(\chi_{c0}\pi^+,\ \chi_{c0} \to \pi^+\pi^-)/\Gamma_{\text{total}}$ — Γ_{388}/Γ

NODE=S041S04

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.1	90	[1] AUBERT	09L	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.3	90	[1] AUBERT,B	05G	BABR	Repl. by AUBERT 09L

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S04;LINKAGE=EP

$\Gamma(\chi_{c0}\pi^+,\ \chi_{c0} \to \pi^0\pi^0)/\Gamma_{\text{total}}$ — Γ_{389}/Γ

NODE=S041A75

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<5 \times 10^{-7}$	90	LAI	23	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\chi_{c0}K^+)/\Gamma_{\text{total}}$ — Γ_{390}/Γ

NODE=S041B41

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
$1.52^{+0.15}_{-0.13}$ OUR AVERAGE					NEW
[$(1.51^{+0.15}_{-0.13}) \times 10^{-4}$ OUR 2025 AVERAGE]					
$2.0 \pm1.3 \pm0.3 \pm0.1$		[1,2] LEES	20C	BABR	$e^+e^- \to \Upsilon(4S)$
$1.8\ ^{+0.6}_{-0.5} \pm0.6$		[3] CHILIKIN	19	BELL	$e^+e^- \to \Upsilon(4S)$
$1.84\pm0.25\pm0.14$		[4,5] LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$
$1.68\pm0.32\pm0.16$		[4,6] LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$ OCCUR=2
$1.8 \pm0.9 \pm0.1$		[7] LEES	11I	BABR	$e^+e^- \to \Upsilon(4S)$
$1.25^{+0.28}_{-0.25}\pm0.07$		[4,8] AUBERT	08AI	BABR	$e^+e^- \to \Upsilon(4S)$
$4.5 \pm2.1 \pm0.3$		[9] AUBERT,BE	06M	BABR	$e^+e^- \to \Upsilon(4S)$
$1.12\pm0.12^{+0.30}_{-0.20}$		[4] GARMASH	06	BELL	$e^+e^- \to \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

<3.3	90	[2] KATO	18	BELL	$e^+e^- \to \Upsilon(4S)$	OCCUR=2
<2.5	95	[10] AAIJ	13S	LHCB	pp at 7 TeV	
<5	90	[4,11] WICHT	08	BELL	$e^+e^- \to \Upsilon(4S)$	
<1.8	90	[2] AUBERT	06E	BABR	$e^+e^- \to \Upsilon(4S)$	
$1.84 \pm 0.32 \pm 0.31$		[4,12] AUBERT	06O	BABR	Repl. by LEES 12O	
<8.9	90	[4] AUBERT	05K	BABR	$e^+e^- \to \Upsilon(4S)$	
$1.39 \pm 0.49 \pm 0.11$		[13] AUBERT,B	05N	BABR	Repl. by AUBERT 08AI	
$1.96 \pm 0.35 ^{+2.00}_{-0.42}$		[4] GARMASH	05	BELL	Repl. by GARMASH 06	
2.7 ± 0.7		[14] AUBERT	04T	BABR	Repl. by AUBERT,B 04P	
$3.0 \pm 0.8 \pm 0.3$		[15] AUBERT,B	04P	BABR	Repl. by AUBERT,B 05N	
$6.0 ^{+2.1}_{-1.8} \pm 1.1$		[16] ABE	02B	BELL	Repl. by GARMASH 05	
<4.8	90	[17] EDWARDS	01	CLE2	$e^+e^- \to \Upsilon(4S)$	

[1] LEES 20C measurement's last uncertainty is due to the used B($B^\pm \to K^\pm J/\psi$) value. NODE=S041B41;LINKAGE=D

[2] Measures absolute branching fractions using a missing-mass technique. NODE=S041B41;LINKAGE=UT

[3] CHILIKIN 19 reports $[\Gamma(B^+ \to \chi_{c0} K^+)/\Gamma_{\text{total}}] \times [B(\chi_{c0}(1P) \to p\overline{p}\pi^+\pi^-)] = (3.7 ^{+1.2}_{-1.0} {}^{+0.2}_{-0.3}) \times 10^{-7}$ which we divide by our best value $B(\chi_{c0}(1P) \to p\overline{p}\pi^+\pi^-) = (2.1 \pm 0.7) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B41;LINKAGE=C

[4] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B41;LINKAGE=EP

[5] Measured in the $B^+ \to K^+ K^- K^+$ decay. NODE=S041B41;LINKAGE=LA

[6] Measured in the $B^+ \to K^+ K^0_S K^0_S$ decay. NODE=S041B41;LINKAGE=LB

[7] LEES 11I reports $[\Gamma(B^+ \to \chi_{c0} K^+)/\Gamma_{\text{total}}] \times [B(\chi_{c0}(1P) \to \pi\pi)] = (1.53 \pm 0.66 \pm 0.27) \times 10^{-6}$ which we divide by our best value $B(\chi_{c0}(1P) \to \pi\pi) = (8.4 \pm 0.4) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B41;LINKAGE=LE

[8] AUBERT 08AI reports $(0.70 \pm 0.10 ^{+0.12}_{-0.10}) \times 10^{-6}$ for $B(B^+ \to \chi_{c0} K^+) \times B(\chi_{c0} \to \pi^+\pi^-)$. We compute $B(B^+ \to \chi_{c0} K^+)$ using the PDG value $B(\chi_{c0} \to \pi\pi) = (8.4 \pm 0.4) \times 10^{-3}$ and 2/3 for the $\pi^+\pi^-$ fraction. Our first error is their experiment's error and the second error is systematic error from using our best value. NODE=S041B41;LINKAGE=UB

[9] AUBERT,BE 06M reports $[\Gamma(B^+ \to \chi_{c0} K^+)/\Gamma_{\text{total}}] \times [B(\chi_{c0}(1P) \to \gamma J/\psi(1S))] = (6.1 \pm 2.6 \pm 1.1) \times 10^{-6}$ which we divide by our best value $B(\chi_{c0}(1P) \to \gamma J/\psi(1S)) = (1.36 \pm 0.09) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. The significance of the observed signal is 2.4 σ. NODE=S041B41;LINKAGE=AP

[10] AAIJ 13S reports $[\Gamma(B^+ \to \chi_{c0} K^+)/\Gamma_{\text{total}}] \times [B(\chi_{c0}(1P) \to p\overline{p})] < 6 \times 10^{-8}$ which we divide by our best value $B(\chi_{c0}(1P) \to p\overline{p}) = 2.38 \times 10^{-4}$. NODE=S041B41;LINKAGE=AA

[11] WICHT 08 reports $[\Gamma(B^+ \to \chi_{c0} K^+)/\Gamma_{\text{total}}] \times [B(\chi_{c0}(1P) \to \gamma\gamma)] < 0.11 \times 10^{-6}$ which we divide by our best value $B(\chi_{c0}(1P) \to \gamma\gamma) = 2.05 \times 10^{-4}$. NODE=S041B41;LINKAGE=WI

[12] Measured in the $B^+ \to K^+ K^- K^+$ decay. NODE=S041B41;LINKAGE=AE

[13] AUBERT,B 05N reports $(0.66 \pm 0.22 \pm 0.08) \times 10^{-6}$ for $B(B^+ \to \chi^0_c K^+) \times B(\chi^0_c \to \pi^+\pi^-)$. We compute $B(B^+ \to \chi^0_c K^+)$ using the PDG value $B(\chi^0_c \to \pi^+\pi^-) = (7.1 \pm 0.6) \times 10^{-3}$ and 2/3 for the $\pi^+\pi^-$ fraction. NODE=S041B41;LINKAGE=AT

[14] The measurement performed using decay channels $\chi_{c0} \to \pi^+\pi^-$ and $\chi_{c0} \to K^+K^-$. The ratio of the branching ratios for these channels is found to be consistent with world average. NODE=S041B41;LINKAGE=AU

[15] AUBERT 04P reports $B(B^+ \to \chi_{c0} K^+) \times B(\chi_{c0} \to \pi^+\pi^-) = (1.5 \pm 0.4 \pm 0.1) \times 10^{-6}$ and used PDG value of $B(\chi_{c0} \to \pi\pi) = (7.4 \pm 0.8) \times 10^{-3}$ and Clebsh-Gordan coefficient to compute $B(B^\pm -> \chi_{c0} K^+)$. NODE=S041B41;LINKAGE=AB

[16] ABE 02B measures the ratio of $B(B^+ \to \chi_{c0} K^+)/B(B^+ \to J/\psi(1S) K^+) = 0.60 + 0.21 - 0.18 \pm 0.05 \pm 0.08$, where the third error is due to the uncertainty in the $B(\chi_{c0} \to \pi^+\pi^-)$, and uses $B(B^+ \to J/\psi(1S) K^+) = (10.0 \pm 1.0) \times 10^{-4}$ to obtain the result. NODE=S041B41;LINKAGE=B4

[17] EDWARDS 01 assumes equal production of B^0 and B^+ at the $\Upsilon(4S)$. The correlated uncertainties (28.3)% from $B(J/\psi(1S) \to \gamma\eta_c)$ in those modes have been accounted for. NODE=S041B41;LINKAGE=A

$\Gamma(\chi_{c0} K^0 \pi^+)/\Gamma_{\text{total}}$ — Γ_{391}/Γ

NODE=S041D05
NODE=S041D05

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
$1.45 \pm 0.08 \pm 0.19$	[1] AAIJ	23AH	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to J/\psi K^+$ uncertainties. NODE=S041D05;LINKAGE=A

$\Gamma(\chi_{c0} K^*(892)^+)/\Gamma_{total}$ — Γ_{392}/Γ

NODE=S041Q70
NODE=S041Q70

VALUE (units 10^{-4})	CL%	DOCUMENT ID	TECN	COMMENT
< 2.1	90	[1] AUBERT 08BD	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<28.6	90	[1] AUBERT 05K	BABR	Repl. by AUBERT 08BD

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q70;LINKAGE=EP

$\Gamma(\chi_{c1}(1P)\pi^+)/\Gamma_{total}$ — Γ_{393}/Γ

NODE=S041RC1
NODE=S041RC1

VALUE (units 10^{-5})	DOCUMENT ID	TECN	COMMENT
2.2±0.4±0.3	[1] KUMAR 06	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041RC1;LINKAGE=EP

$\Gamma(\chi_{c1}(1P)K^+)/\Gamma_{total}$ — Γ_{394}/Γ

NODE=S041R90
NODE=S041R90

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
4.74± 0.22 OUR AVERAGE			
4.0 ± 0.8 ±0.6 ±0.1	[1,2] LEES 20C	BABR	$e^+ e^- \to \Upsilon(4S)$
$9\ ^{+3}_{-2}\ \pm 4$	[3] CHILIKIN 19	BELL	$e^+ e^- \to \Upsilon(4S)$
5.8 ± 0.9 ±0.5	[1] KATO 18	BELL	$e^+ e^- \to \Upsilon(4S)$
4.94± 0.11±0.33	[4] BHARDWAJ 11	BELL	$e^+ e^- \to \Upsilon(4S)$
4.5 ± 0.1 ±0.3	[5] AUBERT 09B	BABR	$e^+ e^- \to \Upsilon(4S)$
15.5 ± 5.4 ±2.0	[6] ACOSTA 02F	CDF	$p\overline{p}$ 1.8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
8.1 ± 1.4 ±0.7	[1] AUBERT 06E	BABR	Repl. by LEES 20C
5.2 ± 0.4 ±0.2	[7] AUBERT,BE 06M	BABR	Repl. by AUBERT 09B
4.49± 0.19±0.53	[4] SONI 06	BELL	Repl. by BHARDWAJ 11
5.79± 0.26±0.65	[4] AUBERT 05J	BABR	Repl. by AUBERT,BE 06M
6.1 ± 0.9 ±0.2	[8] AUBERT 02	BABR	Repl. by AUBERT 05J
9.7 ± 4.0 ±0.9	[4] ALAM 94	CLE2	$e^+ e^- \to \Upsilon(4S)$
19 ±13 ±6	[9] ALBRECHT 92E	ARG	$e^+ e^- \to \Upsilon(4S)$

[1] Measures absolute branching fractions using a missing-mass technique. NODE=S041R90;LINKAGE=AT

[2] LEES 20C measurement's last uncertainty is due to the used $B(B^\pm \to K^\pm J/\psi)$ value. NODE=S041R90;LINKAGE=C

[3] CHILIKIN 19 reports $[\Gamma(B^+ \to \chi_{c1}(1P)K^+)/\Gamma_{total}] \times [B(\chi_{c1}(1P) \to p\overline{p}\pi^+\pi^-)] = (4.7^{+1.3}_{-1.2}{}^{+0.4}_{-0.2}) \times 10^{-7}$ which we divide by our best value $B(\chi_{c1}(1P) \to p\overline{p}\pi^+\pi^-) = (5.0 \pm 1.9) \times 10^{-4}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R90;LINKAGE=B

[4] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R90;LINKAGE=EP

[5] Uses $\chi_{c1,2} \to J/\psi\gamma$. Assumes $B(\Upsilon(4S) \to B^+B^-) = (51.6 \pm 0.6)\%$ and $B(\Upsilon(4S) \to B^0\overline{B}^0) = (48.4 \pm 0.6)\%$. NODE=S041R90;LINKAGE=AU

[6] ACOSTA 02F uses as reference of $B(B \to J/\psi(1S)K^+) = (10.1 \pm 0.6) \times 10^{-4}$. The second error includes the systematic error and the uncertainties of the branching ratio. NODE=S041R90;LINKAGE=CA

[7] AUBERT,BE 06M reports $[\Gamma(B^+ \to \chi_{c1}(1P)K^+)/\Gamma_{total}] \times [B(\chi_{c1}(1P) \to \gamma J/\psi(1S))] = (1.76 \pm 0.07 \pm 0.12) \times 10^{-4}$ which we divide by our best value $B(\chi_{c1}(1P) \to \gamma J/\psi(1S)) = (33.8 \pm 1.2) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R90;LINKAGE=AP

[8] AUBERT 02 reports $(7.5 \pm 0.9 \pm 0.8) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to \chi_{c1}(1P)K^+)/\Gamma_{total}] \times [B(\chi_{c1}(1P) \to \gamma J/\psi(1S))]$ assuming $B(\chi_{c1}(1P) \to \gamma J/\psi(1S)) = 0.273 \pm 0.016$, which we rescale to our best value $B(\chi_{c1}(1P) \to \gamma J/\psi(1S)) = (33.8 \pm 1.2) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R90;LINKAGE=J3

[9] ALBRECHT 92E assumes no $\chi_{c2}(1P)$ production and $B(\Upsilon(4S) \to B^+B^-) = 50\%$. NODE=S041R90;LINKAGE=A

$\Gamma(\chi_{c1}(1P)K^+)/\Gamma(J/\psi(1S)K^+)$ — $\Gamma_{394}/\Gamma_{316}$

NODE=S041B47
NODE=S041B47

VALUE	DOCUMENT ID	TECN	COMMENT
0.61±0.07 OUR AVERAGE [0.60 ± 0.07 OUR 2025 AVERAGE]			
0.61±0.07±0.02	[1] AUBERT 02	BABR	$e^+ e^- \to \Upsilon(4S)$

NEW

[1] AUBERT 02 reports $0.75 \pm 0.08 \pm 0.05$ from a measurement of $[\Gamma(B^+ \to \chi_{c1}(1P)K^+)/\Gamma(B^+ \to J/\psi(1S)K^+)] \times [B(\chi_{c1}(1P) \to \gamma J/\psi(1S))]$ assuming $B(\chi_{c1}(1P) \to \gamma J/\psi(1S)) = 0.273 \pm 0.016$, which we rescale to our best value $B(\chi_{c1}(1P) \to \gamma J/\psi(1S)) = (33.8 \pm 1.2) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B47;LINKAGE=J3

$\Gamma(\chi_{c1}(1P)\pi^+)/\Gamma(\chi_{c1}(1P)K^+)$ — $\Gamma_{393}/\Gamma_{394}$

NODE=S041QC1

VALUE	DOCUMENT ID		TECN	COMMENT
0.043±0.008±0.003	[1] KUMAR	06	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041QC1;LINKAGE=EP

$\Gamma(\chi_{c1}(1P)K^*(892)^+)/\Gamma_{total}$ — Γ_{395}/Γ

NODE=S041R95

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
3.0 ±0.6 OUR AVERAGE		Error includes scale factor of 1.1.			
2.6 ±0.5 ±0.4		[1] AUBERT	09B	BABR	$e^+e^- \to \Upsilon(4S)$
4.05±0.59±0.95		[2] SONI	06	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2.94±0.95±0.98		[2] AUBERT	05J	BABR	Repl. by AUBERT 09B
<21	90	[2] ALAM	94	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Uses $\chi_{c1,2} \to J/\psi\gamma$. Assumes B($\Upsilon(4S) \to B^+B^-$) = (51.6 ± 0.6)% and B($\Upsilon(4S) \to B^0\overline{B}^0$) = (48.4 ± 0.6)%. NODE=S041R95;LINKAGE=AU

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R95;LINKAGE=EP

$\Gamma(\chi_{c1}(1P)K^*(892)^+)/\Gamma(\chi_{c1}(1P)K^+)$ — $\Gamma_{395}/\Gamma_{394}$

NODE=S041Q76

VALUE	DOCUMENT ID		TECN	COMMENT
0.51±0.17±0.16	AUBERT	05J	BABR	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\chi_{c1}(1P)K^0\pi^+)/\Gamma_{total}$ — Γ_{396}/Γ

NODE=S041C26

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
5.75±0.26±0.32	[1] BHARDWAJ	16	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C26;LINKAGE=A

$\Gamma(\chi_{c1}(1P)K^0\pi^+)/\Gamma(J/\psi(1S)K^0\pi^+)$ — $\Gamma_{396}/\Gamma_{317}$

NODE=S041C73

VALUE	DOCUMENT ID		TECN	COMMENT
0.510±0.035 OUR AVERAGE	[0.503 ± 0.035 OUR 2025 AVERAGE]			
0.510±0.030±0.018	[1] LEES	12B	BABR	$e^+e^- \to \Upsilon(4S)$

NEW

[1] LEES 12B reports 0.501 ± 0.024 ± 0.028 from a measurement of [$\Gamma(B^+ \to \chi_{c1}(1P)K^0\pi^+)/\Gamma(B^+ \to J/\psi(1S)K^0\pi^+)$] × [B($\chi_{c1}(1P) \to \gamma J/\psi(1S)$)] assuming B($\chi_{c1}(1P) \to \gamma J/\psi(1S)$) = (34.4 ± 1.5) × 10^{-2}, which we rescale to our best value B($\chi_{c1}(1P) \to \gamma J/\psi(1S)$) = (33.8 ± 1.2) × 10^{-2}. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041C73;LINKAGE=LE

$\Gamma(\chi_{c1}(1P)K^+\pi^0)/\Gamma_{total}$ — Γ_{397}/Γ

NODE=S041P03

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
3.29±0.29±0.19	[1] BHARDWAJ	16	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P03;LINKAGE=A

$\Gamma(\chi_{c1}(1P)K^+\pi^+\pi^-)/\Gamma_{total}$ — Γ_{398}/Γ

NODE=S041P19

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
3.74±0.18±0.24	[1] BHARDWAJ	16	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P19;LINKAGE=A

$\Gamma(\chi_{c1}(2P)K^+,\ \chi_{c1}(2P) \to \pi^+\pi^-\chi_{c1}(1P))/\Gamma_{total}$ — Γ_{399}/Γ

NODE=S041P22

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.1 × 10^−5	90	[1,2] BHARDWAJ	16	BELL	$e^+e^- \to \Upsilon(4S)$

[1] BHARDWAJ 16 analysis fixes mass and width of the $\chi_{c1}(2P)$ state to 3920 MeV and 20 MeV. NODE=S041P22;LINKAGE=A

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P22;LINKAGE=B

$\Gamma(\chi_{c2}\pi^+,\ \chi_{c2} \to \pi^0\pi^0)/\Gamma_{total}$ — Γ_{400}/Γ

NODE=S041A76

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<7 × 10^−7	90	LAI	23	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\chi_{c2} K^+)/\Gamma_{total}$ — Γ_{401}/Γ

NODE=S041Q72

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
$1.11^{+0.36}_{-0.34}\pm0.09$		[1] BHARDWAJ	11	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<$ 1.8	90	[2] AUBERT	09B	BABR	$e^+e^- \to \Upsilon(4S)$
$<$20	90	[3] AUBERT	06E	BABR	$e^+e^- \to \Upsilon(4S)$
$<$ 2.9	90	[1] SONI	06	BELL	Repl. by BHARDWAJ 11
$<$ 3.0	90	[1] AUBERT	05K	BABR	Repl. by AUBERT 06E

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q72;LINKAGE=EP

[2] Uses $\chi_{c1,2} \to J/\psi\gamma$. Assumes B($\Upsilon(4S) \to B^+B^-$) = (51.6 ± 0.6)% and B($\Upsilon(4S) \to B^0\overline{B}^0$) = (48.4 ± 0.6)%. NODE=S041Q72;LINKAGE=AU

[3] Perform measurements of absolute branching fractions using a missing mass technique. NODE=S041Q72;LINKAGE=AT

$\Gamma(\chi_{c2} K^+,\ \chi_{c2} \to p\overline{p}\pi^+\pi^-)/\Gamma_{total}$ — Γ_{402}/Γ

NODE=S041P69

VALUE	DOCUMENT ID		TECN	COMMENT
$<1.9 \times 10^{-7}$	CHILIKIN	19	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(B^+ \to \chi_{c2} K^+)/\Gamma_{total} \times \Gamma(\chi_{c2}(1P) \to \gamma\gamma)/\Gamma_{total}$ — $\Gamma_{401}/\Gamma \times \Gamma^{\chi_{c2}(1P)}_{108}/\Gamma^{\chi_{c2}(1P)}$

NODE=S041C13

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.09	90	[1] WICHT	08	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C13;LINKAGE=EP

$\Gamma(\chi_{c2} K^*(892)^+)/\Gamma_{total}$ — Γ_{403}/Γ

NODE=S041Q73

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<12 \times 10^{-5}$	90	[1] AUBERT	09B	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<12.7 \times 10^{-5}$	90	[2] SONI	06	BELL	$e^+e^- \to \Upsilon(4S)$
$<$ 1.2×10^{-5}	90	[2] AUBERT	05K	BABR	Repl. by AUBERT 09B

[1] Uses $\chi_{c1,2} \to J/\psi\gamma$. Assumes B($\Upsilon(4S) \to B^+B^-$) = (51.6 ± 0.6)% and B($\Upsilon(4S) \to B^0\overline{B}^0$) = (48.4 ± 0.6)%. NODE=S041Q73;LINKAGE=AU

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q73;LINKAGE=EP

$\Gamma(\chi_{c2} K^0\pi^+)/\Gamma_{total}$ — Γ_{404}/Γ

NODE=S041P00

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
1.24±0.25 OUR AVERAGE				
9.2 ±2.1 ±1.3	[1] AAIJ	23AH	LHCB	pp at 7, 8 and 13 TeV
1.16±0.22±0.12	[2] BHARDWAJ	16	BELL	$e^+e^- \to \Upsilon(4S)$

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to J/\psi K^+$ uncertainties. NODE=S041P00;LINKAGE=B

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P00;LINKAGE=A

$\Gamma(\chi_{c2} K^+\pi^0)/\Gamma_{total}$ — Γ_{405}/Γ

NODE=S041P04

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<0.62 \times 10^{-4}$	90	[1] BHARDWAJ	16	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P04;LINKAGE=A

$\Gamma(\chi_{c2} K^+\pi^+\pi^-)/\Gamma_{total}$ — Γ_{406}/Γ

NODE=S041P20

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
1.34±0.17±0.09	[1] BHARDWAJ	16	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P20;LINKAGE=A

$\Gamma(\chi_{c2}(3930) K^+,\ \chi_{c2} \to D^+D^-)/\Gamma(D^-D^+K^+)$ — $\Gamma_{407}/\Gamma_{228}$

NODE=S041A22

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
7.2±1.2±0.3	[1] AAIJ	20AI	LHCB	pp at 7, 8, 13 TeV

[1] Measured in Dalitz plot analysis of $B^+ \to D^-D^+K^+$ decays. NODE=S041A22;LINKAGE=A

$\Gamma(\chi_{c2}(3930)\pi^+,\ \chi_{c2} \to \pi^+\pi^-)/\Gamma_{total}$ — Γ_{408}/Γ

NODE=S041C57

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.1	90	[1] AUBERT	09L	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C57;LINKAGE=EP

$\Gamma(h_c(1P)K^+)/\Gamma_{total}$ Γ_{409}/Γ

NODE=S041Q85
NODE=S041Q85

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
$3.7^{+1.0+0.8}_{-0.9-0.8}$		CHILIKIN	19	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<3.8	90	[1] FANG	06	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$ and B($h_c \to \eta_c\gamma$) = 50%.

NODE=S041Q85;LINKAGE=EP

$\Gamma(h_c(1P)K^+,\ h_c \to p\overline{p})/\Gamma_{total}$ Γ_{410}/Γ

NODE=S041BA4
NODE=S041BA4

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<6.4 \times 10^{-8}$	95	[1] AAIJ	13S	LHCB	pp at 7 TeV

[1] Measured relative to $B^+ \to J/\psi K^+$ decay with charmonia reconstructed in $p\overline{p}$ final state and using B($B^+ \to J/\psi K^+$) = $(1.013 \pm 0.034) \times 10^{-3}$ and B($J/\psi \to p\overline{p}$) = $(2.17 \pm 0.07) \times 10^{-3}$.

NODE=S041BA4;LINKAGE=AA

$\Gamma(K^0\pi^+)/\Gamma_{total}$ Γ_{411}/Γ

NODE=S041R5
NODE=S041R5

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
23.9 ± 0.6 OUR FIT					
24.0 ± 0.6 OUR AVERAGE					
$24.37 \pm 0.71 \pm 0.86$		ADACHI	24	BELL	$e^+e^- \to \Upsilon(4S)$
$23.97 \pm 0.53 \pm 0.71$		[1] DUH	13	BELL	$e^+e^- \to \Upsilon(4S)$
$23.9 \pm 1.1 \pm 1.0$		[1] AUBERT,BE	06C	BABR	$e^+e^- \to \Upsilon(4S)$
$18.8^{+3.7+2.1}_{-3.3-1.8}$		[1] BORNHEIM	03	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$22.8^{+0.8}_{-0.7} \pm 1.3$		[1] LIN	07	BELL	Repl. by DUH 13
$26.0 \pm 1.3 \pm 1.0$		[1] AUBERT,BE	05E	BABR	Repl. by AUBERT,BE 06C
$22.3 \pm 1.7 \pm 1.1$		[1] AUBERT	04M	BABR	Repl. by AUBERT,BE 05E
$22.0 \pm 1.9 \pm 1.1$		[1] CHAO	04	BELL	Repl. by LIN 07
$19.4^{+3.1}_{-3.0} \pm 1.6$		[1] CASEY	02	BELL	Repl. by CHAO 04
$13.7^{+5.7+1.9}_{-4.8-1.8}$		[1] ABE	01H	BELL	Repl. by CASEY 02
$18.2^{+3.3}_{-3.0} \pm 2.0$		[1] AUBERT	01E	BABR	Repl. by AUBERT 04M
$18.2^{+4.6}_{-4.0} \pm 1.6$		[1] CRONIN-HEN...	00	CLE2	Repl. by BORNHEIM 03
$23^{+11}_{-10} \pm 3.6$		GODANG	98	CLE2	Repl. by CRONIN-HENNESSY 00
<48	90	ASNER	96	CLE2	Repl. by GODANG 98
<190	90	ALBRECHT	91B	ARG	$e^+e^- \to \Upsilon(4S)$
<100	90	[2] AVERY	89B	CLEO	$e^+e^- \to \Upsilon(4S)$
<680	90	AVERY	87	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R5;LINKAGE=EP

[2] AVERY 89B reports $< 9 \times 10^{-5}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%.

NODE=S041R5;LINKAGE=A1

$\Gamma(K^+\pi^0)/\Gamma_{total}$ Γ_{412}/Γ

NODE=S041R97
NODE=S041R97

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
13.2 ±0.4 OUR AVERAGE					
$13.93 \pm 0.38 \pm 0.71$		ADACHI	24	BELL	$e^+e^- \to \Upsilon(4S)$
$12.62 \pm 0.31 \pm 0.56$		[1] DUH	13	BELL	$e^+e^- \to \Upsilon(4S)$
$13.6 \pm 0.6 \pm 0.7$		[1] AUBERT	07BC	BABR	$e^+e^- \to \Upsilon(4S)$
$12.9^{+2.4+1.2}_{-2.2-1.1}$		[1] BORNHEIM	03	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$12.4 \pm 0.5 \pm 0.6$		[1] LIN	07A	BELL	Repl. by DUH 13
$12.0 \pm 0.7 \pm 0.6$		[1] AUBERT	05L	BABR	Repl. by AUBERT 07BC
$12.0 \pm 1.3^{+1.3}_{-0.9}$		[1] CHAO	04	BELL	Repl. by LIN 07A
$12.8^{+1.2}_{-1.1} \pm 1.0$		[1] AUBERT	03L	BABR	Repl. by AUBERT 05L
$13.0^{+2.5}_{-2.4} \pm 1.3$		[1] CASEY	02	BELL	Repl. by CHAO 04

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$16.3 ^{+3.5}_{-3.3} {}^{+1.6}_{-1.8}$		[1] ABE	01H	BELL	Repl. by CASEY 02
$10.8 ^{+2.1}_{-1.9} \pm 1.0$		[1] AUBERT	01E	BABR	Repl. by AUBERT 03L
$11.6 ^{+3.0}_{-2.7} {}^{+1.4}_{-1.3}$		[1] CRONIN-HEN...	00	CLE2	Repl. by BORNHEIM 03
<16	90	GODANG	98	CLE2	Repl. by CRONIN-HENNESSY 00
<14	90	ASNER	96	CLE2	Repl. by GODANG 98

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R97;LINKAGE=EP

$\Gamma(K^+\pi^0)/\Gamma(K^0\pi^+)$ $\Gamma_{412}/\Gamma_{411}$

NODE=S041B44
NODE=S041B44

VALUE	DOCUMENT ID		TECN	COMMENT
0.54±0.03±0.04	LIN	07A	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$2.38 ^{+0.98}_{-1.10} {}^{+0.39}_{-0.26}$	ABE	01H	BELL	Repl. by LIN 07A

$\Gamma(\eta' K^+)/\Gamma_{total}$ Γ_{413}/Γ

NODE=S041B24
NODE=S041B24

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
70.4± 2.5 OUR AVERAGE				
71.5± 1.3±3.2	[1] AUBERT	09AV	BABR	$e^+e^- \to \Upsilon(4S)$
$61 ^{+10}_{-8} \pm 1$	[1,2] WICHT	08	BELL	$e^+e^- \to \Upsilon(4S)$
69.2± 2.2±3.7	[1] SCHUEMANN	06	BELL	$e^+e^- \to \Upsilon(4S)$
$80 ^{+10}_{-9} \pm 7$	[1] RICHICHI	00	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
70.0± 1.5±2.8	[1] AUBERT	07AE	BABR	Repl. by AUBERT 09AV
68.9± 2.0±3.2	[1] AUBERT	05M	BABR	Repl. by AUBERT 07AE
76.9± 3.5±4.4	[1] AUBERT	03W	BABR	Repl. by AUBERT 05M
$79 ^{+12}_{-11} \pm 9$	[1] ABE	01M	BELL	Repl. by SCHUEMANN 06
70 ± 8 ±5	[1] AUBERT	01G	BABR	Repl. by AUBERT 03W
$65 ^{+15}_{-14} \pm 9$	BEHRENS	98	CLE2	Repl. by RICHICHI 00

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B24;LINKAGE=EP

[2] WICHT 08 reports $[\Gamma(B^+ \to \eta' K^+)/\Gamma_{total}] \times [B(\eta'(958) \to \gamma\gamma)] = (1.40 ^{+0.16}_{-0.15} {}^{+0.15}_{-0.12}) \times 10^{-6}$ which we divide by our best value $B(\eta'(958) \to \gamma\gamma) = (2.307 \pm 0.033) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B24;LINKAGE=WI

$\Gamma(\eta' K^*(892)^+)/\Gamma_{total}$ Γ_{414}/Γ

NODE=S041B20
NODE=S041B20

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{4.8 ^{+1.6}_{-1.4} \pm 0.8}$		[1] DEL-AMO-SA...	10A	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$4.9 ^{+1.9}_{-1.7} \pm 0.8$		[1] AUBERT	07E	BABR	Repl. by DEL-AMO-SANCHEZ 10A
< 2.9	90	[1] SCHUEMANN	07	BELL	$e^+e^- \to \Upsilon(4S)$
<14	90	[1] AUBERT,B	04D	BABR	Repl. by AUBERT 07E
<35	90	[1] RICHICHI	00	CLE2	$e^+e^- \to \Upsilon(4S)$
<13	90	BEHRENS	98	CLE2	Repl. by RICHICHI 00

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B20;LINKAGE=EP

$\Gamma(\eta' K_0^*(1430)^+)/\Gamma_{total}$ Γ_{415}/Γ

NODE=S041T63
NODE=S041T63

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
5.2±1.9±1.0	[1] DEL-AMO-SA...	10A	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T63;LINKAGE=EP

$\Gamma(\eta' K_2^*(1430)^+)/\Gamma_{total}$ Γ_{416}/Γ

NODE=S041T64
NODE=S041T64

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$\mathbf{28.0 ^{+4.6}_{-4.3} \pm 2.6}$	[1] DEL-AMO-SA...	10A	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T64;LINKAGE=EP

$\Gamma(\eta K^+)/\Gamma_{total}$ — Γ_{417}/Γ

NODE=S041B21

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
2.4 ±0.4 OUR AVERAGE		Error includes scale factor of 1.7.			
$2.12 \pm 0.23 \pm 0.11$		[1] HOI	12	BELL	$e^+ e^- \to \Upsilon(4S)$
$2.94^{+0.39}_{-0.34} \pm 0.21$		[1] AUBERT	09AV	BABR	$e^+ e^- \to \Upsilon(4S)$
$2.2\ ^{+2.8}_{-2.2}$		[1] RICHICHI	00	CLE2	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$2.21^{+0.48}_{-0.42} \pm 0.01$		[1,2] WICHT	08	BELL	Repl. by HOI 12
$3.7\ \pm 0.4\ \pm 0.1$		[1] AUBERT	07AE	BABR	Repl. by AUBERT 09AV
$1.9\ \pm 0.3\ ^{+0.2}_{-0.1}$		[1] CHANG	07B	BELL	Repl. by HOI 12
$3.3\ \pm 0.6\ \pm 0.3$		[1] AUBERT,B	05K	BABR	Repl. by AUBERT 07AE
$2.1\ \pm 0.6\ \pm 0.2$		[1] CHANG	05A	BELL	Repl. by CHANG 07B
$3.4\ \pm 0.8\ \pm 0.2$		[1] AUBERT	04H	BABR	Repl. by AUBERT,B 05K
<14	90	BEHRENS	98	CLE2	Repl. by RICHICHI 00

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

[2] WICHT 08 reports $[\Gamma(B^+ \to \eta K^+)/\Gamma_{total}] \times [B(\eta \to 2\gamma)] = (0.87^{+0.16}_{-0.15}{}^{+0.10}_{-0.07}) \times 10^{-6}$ which we divide by our best value $B(\eta \to 2\gamma) = (39.36 \pm 0.18) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041B21;LINKAGE=EP
NODE=S041B21;LINKAGE=WI

$\Gamma(\eta K^*(892)^+)/\Gamma_{total}$ — Γ_{418}/Γ

NODE=S041B22

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
19.3±1.6 OUR AVERAGE					
$19.3^{+2.0}_{-1.9} \pm 1.5$		[1] WANG	07B	BELL	$e^+ e^- \to \Upsilon(4S)$
$18.9 \pm 1.8 \pm 1.3$		[1] AUBERT,B	06H	BABR	$e^+ e^- \to \Upsilon(4S)$
$26.4^{+9.6}_{-8.2} \pm 3.3$		[1] RICHICHI	00	CLE2	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$25.6 \pm 4.0 \pm 2.4$		[1] AUBERT,B	04D	BABR	Repl. by AUBERT,B 06H
<30	90	BEHRENS	98	CLE2	Repl. by RICHICHI 00

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B22;LINKAGE=EP

$\Gamma(\eta K_0^*(1430)^+)/\Gamma_{total}$ — Γ_{419}/Γ

NODE=S041T16

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$18.2 \pm 2.6 \pm 2.6$	[1] AUBERT,B	06H	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T16;LINKAGE=EP

$\Gamma(\eta K_2^*(1430)^+)/\Gamma_{total}$ — Γ_{420}/Γ

NODE=S041T17

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$9.1 \pm 2.7 \pm 1.4$	[1] AUBERT,B	06H	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T17;LINKAGE=EP

$\Gamma(\eta(1295) K^+,\ \eta \to \eta\pi\pi)/\Gamma_{total}$ — Γ_{421}/Γ

NODE=S041T37

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$2.9^{+0.8}_{-0.7} \pm 0.2$	[1] AUBERT	08X	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T37;LINKAGE=EP

$\Gamma(\eta(1405) K^+,\ \eta \to \eta\pi\pi)/\Gamma_{total}$ — Γ_{422}/Γ

NODE=S041T38

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<1.3	90	[1] AUBERT	08X	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T38;LINKAGE=EP

$\Gamma(\eta(1405) K^+,\ \eta \to K^* K)/\Gamma_{total}$ — Γ_{423}/Γ

NODE=S041T39

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$3.8 \pm 0.5 \pm 0.9$		[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV
<1.2	90	[3] AUBERT	08X	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041T39;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041T39;LINKAGE=B

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T39;LINKAGE=EP

$\Gamma(\eta(1405) K^+,\ \eta \to K^0 K \pi)/\Gamma_{total}$ — Γ_{424}/Γ

NODE=S041D53
NODE=S041D53

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
0.80±0.05±0.10	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041D53;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041D53;LINKAGE=B

$\Gamma(\eta(1475) K^+,\ \eta \to K^* K)/\Gamma_{total}$ — Γ_{425}/Γ

NODE=S041T40
NODE=S041T40

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
14.2±1.3 OUR AVERAGE				
[$(13.8^{+2.1}_{-1.8}) \times 10^{-6}$ OUR 2025 AVERAGE]				
$14.5 \pm 1.1 \pm 1.5$	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV
$13.8^{+1.8}_{-1.7}{}^{+1.0}_{-0.6}$	[3] AUBERT	08X	BABR	$e^+ e^- \to \Upsilon(4S)$

NEW

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041T40;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041T40;LINKAGE=B

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T40;LINKAGE=EP

$\Gamma(\eta(1475) K^+,\ \eta \to a_0(980) \pi)/\Gamma_{total}$ — Γ_{426}/Γ

NODE=S041D51
NODE=S041D51

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
0.22±0.04±0.03	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041D51;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements from $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041D51;LINKAGE=B

$\Gamma(\eta(1475) K^+,\ \eta \to K^0 K \pi)/\Gamma_{total}$ — Γ_{427}/Γ

NODE=S041D52
NODE=S041D52

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
1.51±0.16±0.26	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041D52;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041D52;LINKAGE=B

$\Gamma(\eta(1760) K^+,\ \eta \to K^* \overline{K})/\Gamma_{total}$ — Γ_{428}/Γ

NODE=S041D54
NODE=S041D54

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
0.34±0.04±0.045	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041D54;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041D54;LINKAGE=B

$\Gamma(\eta(1760) K^+,\ \eta \to a_0(980) \pi)/\Gamma_{total}$ — Γ_{429}/Γ

NODE=S041D55
NODE=S041D55

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
0.26±0.04±0.03	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041D55;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041D55;LINKAGE=B

$\Gamma(\eta(1760) K^+,\ \eta \to K^0 K \pi)/\Gamma_{total}$ Γ_{430}/Γ

NODE=S041D85
NODE=S041D85

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
2.21±0.20±0.35	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV

[1] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041D85;LINKAGE=A

[2] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041D85;LINKAGE=B

$\Gamma(f_1(1285) K^+)/\Gamma_{total}$ Γ_{431}/Γ

NODE=S041T41
NODE=S041T41

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<2.0	90	[1] AUBERT	08X	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T41;LINKAGE=EP

$\Gamma(f_1(1285) K^+,\ f_1 \to a_0(980) \pi)/\Gamma_{total}$ Γ_{432}/Γ

NODE=S041D56
NODE=S041D56

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
0.28±0.02±0.03	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041D56;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041D56;LINKAGE=B

$\Gamma(f_1(1420) K^+,\ f_1 \to \eta \pi \pi)/\Gamma_{total}$ Γ_{433}/Γ

NODE=S041T42
NODE=S041T42

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<2.9	90	[1] AUBERT	08X	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T42;LINKAGE=EP

$\Gamma(f_1(1420) K^+,\ f_1 \to K^* K)/\Gamma_{total}$ Γ_{434}/Γ

NODE=S041T43
NODE=S041T43

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
11.4±0.6±2.0		[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV
< 4.1	90	[3] AUBERT	08X	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041T43;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041T43;LINKAGE=B

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T43;LINKAGE=EP

$\Gamma(f_1(1510) K^+,\ f_1 \to K^* \overline{K})/\Gamma_{total}$ Γ_{435}/Γ

NODE=S041D57
NODE=S041D57

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
0.38±0.03±0.15	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041D57;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041D57;LINKAGE=B

$\Gamma(h_1(1415) K^+,\ h_1 \to K^* \overline{K})/\Gamma_{total}$ Γ_{436}/Γ

NODE=S041D58
NODE=S041D58

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
2.22±0.10±0.25	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041D58;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041D58;LINKAGE=B

$\Gamma(h_1(1595)K^+,\ h_1 \to K^*\overline{K})/\Gamma_{total}$ Γ_{437}/Γ

NODE=S041D59

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
1.04±0.10±0.13	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041D59;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041D59;LINKAGE=B

$\Gamma(\eta_2(1645)K^+,\ \eta_2 \to K^*\overline{K})/\Gamma_{total}$ Γ_{438}/Γ

NODE=S041D60

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
0.15±0.02±0.02	[1,2] AAIJ	25F	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes the systematic and the uncertainties on the known branching fractions. NODE=S041D60;LINKAGE=A

[2] This is the inverse-variance weighted average of the branching fraction measurements $B^+ \to K^0 K^- \pi^+ K^+$ and $B^+ \to \overline{K}^0 K^+ \pi^- K^+$ decays. AAIJ 25F also lists the two measurements separately and finds that the resulting fractions are consistent among the two channels when including the systematic uncertainties. NODE=S041D60;LINKAGE=B

$\Gamma(\phi(1680)K^+,\ \phi \to K^* K)/\Gamma_{total}$ Γ_{439}/Γ

NODE=S041T44

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<3.4	90	[1] AUBERT	08X	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T44;LINKAGE=EP

$\Gamma(f_0(1500)K^+)/\Gamma_{total}$ Γ_{440}/Γ

NODE=S041T03

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
3.7± 2.2 OUR AVERAGE					
17 ± 4 ±12		[1] LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$
20 ±10 ±27		[2] LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$ OCCUR=2
$3.2^{+2.2}_{-2.3}\pm 0.2$		[3,4] AUBERT	08AI	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<19	90	[4,5] AUBERT,B	05N	BABR	Repl. by AUBERT 08AI

[1] Measured in the $B^+ \to K^+ K^- K^+$ decay. NODE=S041T03;LINKAGE=LA

[2] Measured in the $B^+ \to K^+ K^0_S K^0_S$ decay. NODE=S041T03;LINKAGE=LB

[3] AUBERT 08AI reports $B(B^+ \to f_0(1500)K^+) \cdot B(f_0(1500) \to \pi^+\pi^-) = (0.73 \pm 0.21^{+0.47}_{-0.48}) \times 10^{-6}$. We divide this result by our best value of $B(f_0(1500) \to \pi\pi) = (34.5 \pm 2.2) \times 10^{-2}$ multiplied by 2/3 to account for the $\pi^+\pi^-$ fraction. Our first quoted uncertainty is the combined experiment's uncertainty and our second is the systematic uncertainty from using out best value. NODE=S041T03;LINKAGE=AU

[4] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T03;LINKAGE=EP

[5] AUBERT,B 05N reports $B(B^+ \to f_0(1500)K^+) \cdot B(f_0(1500) \to \pi^+\pi^-) < 4.4\times10^{-6}$. We divide this result by our best value of $B(f_0(1500) \to \pi\pi) = (34.5 \pm 2.2) \times 10^{-2}$ multiplied by 2/3 to account for the $\pi^+\pi^-$ fraction. Our first quoted uncertainty is the combined experiment's uncertainty and our second is the systematic uncertainty from using out best value. NODE=S041T03;LINKAGE=AB

$\Gamma(\omega K^+)/\Gamma_{total}$ Γ_{441}/Γ

NODE=S041B25

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
6.5±0.4 OUR AVERAGE					
6.8±0.4±0.4		[1] CHOBANOVA	14	BELL	$e^+e^- \to \Upsilon(4S)$
6.3±0.5±0.3		[1] AUBERT	07AE	BABR	$e^+e^- \to \Upsilon(4S)$
$3.2^{+2.4}_{-1.9}\pm0.8$		[1] JESSOP	00	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
6.1±0.6±0.4		[1] AUBERT,B	06E	BABR	AUBERT 07AE
8.1±0.6±0.6		[1] JEN	06	BELL	Repl. by CHOBANOVA 14
4.8±0.8±0.4		[1] AUBERT	04H	BABR	Repl. by AUBERT,B 06E
$6.5^{+1.3}_{-1.2}\pm0.6$		[1] WANG	04A	BELL	Repl. by JEN 06
$9.2^{+2.6}_{-2.3}\pm1.0$		[1] LU	02	BELL	Repl. by WANG 04A
<4	90	[1] AUBERT	01G	BABR	$e^+e^- \to \Upsilon(4S)$
$1.5^{+7}_{-6}\pm2$		[1] BERGFELD	98	CLE2	Repl. by JESSOP 00

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B25;LINKAGE=EP

$\Gamma(\omega K^*(892)^+)/\Gamma_{total}$ Γ_{442}/Γ

NODE=S041B26
NODE=S041B26

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
< 7.4	90	[1] AUBERT	09H	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
< 3.4	90	[1] AUBERT,B	06T	BABR	Repl. by AUBERT 09H
< 7.4	90	[1] AUBERT	05O	BABR	Repl. by AUBERT,B 06T
<87	90	[1] BERGFELD	98	CLE2	

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B26;LINKAGE=EP

$\Gamma(\omega(K\pi)_0^{*+})/\Gamma_{total}$ Γ_{443}/Γ

NODE=S041T51

$(K\pi)_0^{*+}$ is the total S-wave composed of $K_0^*(1430)$ and nonresonant that are described using LASS shape.

NODE=S041T51

NODE=S041T51

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
27.5±3.0±2.6	[1] AUBERT	09H	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T51;LINKAGE=EP

$\Gamma(\omega K_0^*(1430)^+)/\Gamma_{total}$ Γ_{444}/Γ

NODE=S041T52
NODE=S041T52

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
24.0±2.6±4.4	[1] AUBERT	09H	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T52;LINKAGE=EP

$\Gamma(\omega K_2^*(1430)^+)/\Gamma_{total}$ Γ_{445}/Γ

NODE=S041T53
NODE=S041T53

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
21.5±3.6±2.4	[1] AUBERT	09H	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T53;LINKAGE=EP

$\Gamma(a_0(980)^0 K^+,\ a_0^0 \rightarrow \eta\pi^0)/\Gamma_{total}$ Γ_{447}/Γ

NODE=S041RA5
NODE=S041RA5

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<2.5	90	[1] AUBERT,BE	04	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of charged and neutral B mesons from $\Upsilon(4S)$ decays.

NODE=S041RA5;LINKAGE=EP

$\Gamma(a_0(980)^+ K^0,\ a_0^+ \rightarrow \eta\pi^+)/\Gamma_{total}$ Γ_{446}/Γ

NODE=S041RA6
NODE=S041RA6

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<3.9	90	[1] AUBERT,BE	04	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of charged and neutral B mesons from $\Upsilon(4S)$ decays.

NODE=S041RA6;LINKAGE=EP

$\Gamma(K^*(892)^0\pi^+)/\Gamma_{total}$ Γ_{448}/Γ

NODE=S041R6
NODE=S041R6

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
10.1 ±0.8 OUR AVERAGE					
10.1 ±1.7 ±1.0		[1] LEES	17G	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
10.8 ±0.6 $^{+1.2}_{-1.4}$		[2] AUBERT	08AI	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
9.67±0.64 $^{+0.81}_{-0.89}$		[2] GARMASH	06	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
13.5 ±1.2 $^{+0.8}_{-0.9}$		[2] AUBERT,B	05N	BABR	Repl. by AUBERT 08AI
9.8 ±0.9 $^{+1.1}_{-1.2}$		[2] GARMASH	05	BELL	Repl. by GARMASH 06
15.5 ±1.8 $^{+1.5}_{-4.0}$		[2,3] AUBERT,B	04P	BABR	Repl. by AUBERT,B 05N
19.4 $^{+4.2}_{-3.9}$ $^{+4.1}_{-7.1}$		[4] GARMASH	02	BELL	Repl. by GARMASH 05
<119	90	[5] ABE	00C	SLD	$e^+e^- \rightarrow Z$
< 16	90	[2] JESSOP	00	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$
<390	90	[6] ADAM	96D	DLPH	$e^+e^- \rightarrow Z$
< 41	90	ASNER	96	CLE2	Repl. by JESSOP 00
<480	90	[6] ABREU	95N	DLPH	Sup. by ADAM 96D
<170	90	ALBRECHT	91B	ARG	$e^+e^- \rightarrow \Upsilon(4S)$
<150	90	[7] AVERY	89B	CLEO	$e^+e^- \rightarrow \Upsilon(4S)$
<260	90	AVERY	87	CLEO	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Obtains the result from a Dalitz analysis of $B^+ \to K^0_S \pi^+ \pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling. NODE=S041R6;LINKAGE=A
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R6;LINKAGE=EP
[3] AUBERT 04P also report a branching ratio for $B^+ \to$ "higher $K*$ resonances" π^+, $K* \to K^+ \pi^-$, $(25.1 \pm 2.0^{+11.0}_{-5.7}) \times 10^{-6}$. NODE=S041R6;LINKAGE=AB
[4] Uses a reference decay mode $B^+ \to \overline{D}^0 \pi^+$ and $\overline{D}^0 \to K^+ \pi^-$ with $B(B^+ \to \overline{D}^0 \pi^+) \cdot B(\overline{D}^0 \to K^+ \pi^-) = (20.3 \pm 2.0) \times 10^{-5}$. NODE=S041R6;LINKAGE=GM
[5] ABE 00C assumes $B(Z \to b\overline{b})$=(21.7 ± 0.1)% and the B fractions f_{B^0}=f_{B^+}=$(39.7^{+1.8}_{-2.2})$% and f_{B_s}=$(10.5^{+1.8}_{-2.2})$%. NODE=S041R6;LINKAGE=KQ
[6] Assumes a B^0, B^- production fraction of 0.39 and a B_s production fraction of 0.12. NODE=S041R6;LINKAGE=SR
[7] AVERY 89B reports $< 1.3 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0 \overline{B}^0$. We rescale to 50%. NODE=S041R6;LINKAGE=A1

$\Gamma(K^*(892)^+ \pi^0)/\Gamma_{total}$ Γ_{449}/Γ

NODE=S041R99
NODE=S041R99

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
6.8±0.9 OUR AVERAGE					
$6.4 \pm 0.9^{+0.4}_{-0.5}$		[1] LEES	17G	BABR	$e^+ e^- \to \Upsilon(4S)$
$8.2 \pm 1.5 \pm 1.1$		[2] LEES	11I	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$6.9 \pm 2.0 \pm 1.3$		[2] AUBERT	05X	BABR	Repl. by LEES 11I
<31	90	[2] JESSOP	00	CLE2	$e^+ e^- \to \Upsilon(4S)$
<99	90	ASNER	96	CLE2	Repl. by JESSOP 00

[1] Obtains the result from a Dalitz analysis of $B^+ \to K^0_S \pi^+ \pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling. NODE=S041R99;LINKAGE=A
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R99;LINKAGE=EP

$\Gamma(K^+ \pi^- \pi^+)/\Gamma(K^+ K^- K^+)$ $\Gamma_{450}/\Gamma_{503}$

NODE=S041Q00
NODE=S041Q00

VALUE	DOCUMENT ID		TECN	COMMENT
1.703±0.011±0.022	AAIJ	20AJ	LHCB	pp at 7 and 8 TeV

$\Gamma(K^+ \pi^- \pi^+)/\Gamma_{total}$ Γ_{450}/Γ

NODE=S041B60
NODE=S041B60

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
51.0±2.9 OUR AVERAGE				
$54.4 \pm 1.1 \pm 4.6$	[1] AUBERT	08AI	BABR	$e^+ e^- \to \Upsilon(4S)$
$48.8 \pm 1.1 \pm 3.6$	[1] GARMASH	06	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$64.1 \pm 2.4 \pm 4.0$	[1] AUBERT,B	05N	BABR	Repl. by AUBERT 08AI
$46.6 \pm 2.1 \pm 4.3$	[1] GARMASH	05	BELL	Repl. by GARMASH 06
$53.6 \pm 3.1 \pm 5.1$	[1] GARMASH	04	BELL	Repl. by GARMASH 05
$59.1 \pm 3.8 \pm 3.2$	[2] AUBERT	03M	BABR	Repl. by AUBERT,B 05N
$55.6 \pm 5.8 \pm 7.7$	[3] GARMASH	02	BELL	Repl. by GARMASH 04

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B60;LINKAGE=EP
[2] Assumes equal production of B^0 and B^+ at the $\Upsilon(4S)$; charm and charmonium contributions are subtracted, otherwise no assumptions about intermediate resonances. NODE=S041B60;LINKAGE=TM
[3] Uses a reference decay mode $B^+ \to \overline{D}^0 \pi^+$ and $\overline{D}^0 \to K^+ \pi^-$ with $B(B^+ \to \overline{D}^0 \pi^+) \cdot B(\overline{D}^0 \to K^+ \pi^-) = (20.3 \pm 2.0) \times 10^{-5}$. NODE=S041B60;LINKAGE=GM

$\Gamma(K^+ \pi^- \pi^+ \text{ nonresonant})/\Gamma_{total}$ Γ_{451}/Γ

NODE=S041R32
NODE=S041R32

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$16.3^{+2.1}_{-1.5}$ OUR AVERAGE					
$9.3 \pm 1.0^{+6.9}_{-1.7}$		[1,2] AUBERT	08AI	BABR	$e^+ e^- \to \Upsilon(4S)$
$16.9 \pm 1.3^{+1.7}_{-1.6}$		[1] GARMASH	06	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$2.9 \pm 0.6^{+0.8}_{-0.5}$		[1] AUBERT,B	05N	BABR	Repl. by AUBERT 08AI
$17.3 \pm 1.7^{+17.2}_{-8.0}$		[1] GARMASH	05	BELL	Repl. by GARMASH 06
< 17	90	[1] AUBERT,B	04P	BABR	Repl. by AUBERT,B 05N
<330	90	[3] ADAM	96D	DLPH	$e^+ e^- \to Z$
< 28	90	BERGFELD	96B	CLE2	$e^+ e^- \to \Upsilon(4S)$
<400	90	[3] ABREU	95N	DLPH	Sup. by ADAM 96D
<330	90	ALBRECHT	91E	ARG	$e^+ e^- \to \Upsilon(4S)$
<190	90	[4] AVERY	89B	CLEO	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R32;LINKAGE=EP

[2] Calculate the total nonresonant contribution by combining the S-wave composed of $K_0^*(1430)$ and nonresonant that are described using LASS shape. NODE=S041R32;LINKAGE=UB

[3] Assumes a B^0, B^- production fraction of 0.39 and a B_s production fraction of 0.12. NODE=S041R32;LINKAGE=SR

[4] AVERY 89B reports $< 1.7 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0 \overline{B}^0$. We rescale to 50%. NODE=S041R32;LINKAGE=A1

$\Gamma(\omega(782) K^+)/\Gamma_{total}$ — Γ_{452}/Γ

NODE=S041T34
NODE=S041T34

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
$5.9^{+8.8}_{-9.0}\pm0.5$	[1,2] AUBERT 08AI	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T34;LINKAGE=EP

[2] AUBERT 08AI reports $[\Gamma(B^+ \to \omega(782) K^+)/\Gamma_{total}] \times [B(\omega(782) \to \pi^+\pi^-)] = (0.09 \pm 0.13^{+0.036}_{-0.045}) \times 10^{-6}$ which we divide by our best value $B(\omega(782) \to \pi^+\pi^-) = (1.53 \pm 0.12) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041T34;LINKAGE=UB

$\Gamma(K^+ f_0(980) \times B(f_0(980) \to \pi^+\pi^-))/\Gamma_{total}$ — Γ_{453}/Γ

NODE=S041B59
NODE=S041B59

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
$9.4^{+1.0}_{-1.2}$ OUR AVERAGE				
$10.3 \pm0.5 ^{+2.0}_{-1.4}$		[1] AUBERT 08AI	BABR	$e^+e^- \to \Upsilon(4S)$
$8.78\pm0.82^{+0.85}_{-1.76}$		[1] GARMASH 06	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$9.47\pm0.97^{+0.62}_{-0.88}$		[1] AUBERT,B 05N	BABR	Repl. by AUBERT 08AI
$7.55\pm1.24^{+1.63}_{-1.18}$		[1] GARMASH 05	BELL	Repl. by GARMASH 06
$9.2 \pm1.2 ^{+2.1}_{-2.6}$		[2] AUBERT,B 04P	BABR	Repl. by AUBERT,B 05N
$9.6 ^{+2.5}_{-2.3} ^{+3.7}_{-1.7}$		[3] GARMASH 02	BELL	Repl. by GARMASH 05
<80	90	[4] AVERY 89B	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B59;LINKAGE=EP

[2] AUBERT,B 04P also reports $B(B^+ \to$ "higher f^0 resonances" π^+, $f(980)^0 \to \pi^+\pi^-) = (3.2 \pm 1.2^{+6.0}_{-2.9}) \times 10^{-6}$. NODE=S041B59;LINKAGE=AU

[3] Uses a reference decay mode $B^+ \to \overline{D}^0\pi^+$ and $\overline{D}^0 \to K^+\pi^-$ with $B(B^+ \to \overline{D}^0\pi^+)\times B(\overline{D}^0 \to K^+\pi^-) = (20.3 \pm 2.0) \times 10^{-5}$. Only charged pions from the $f_0(980)$ are used. NODE=S041B59;LINKAGE=GM

[4] AVERY 89B reports $< 7 \times 10^{-5}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041B59;LINKAGE=A1

$\Gamma(f_2(1270)^0 K^+)/\Gamma_{total}$ — Γ_{454}/Γ

NODE=S041T00
NODE=S041T00

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
1.07 ± 0.27 OUR AVERAGE				
$0.89^{+0.38}_{-0.33}{}^{+0.01}_{-0.03}$		[1,2] AUBERT 08AI	BABR	$e^+e^- \to \Upsilon(4S)$
$1.33\pm0.30^{+0.23}_{-0.34}$		[1] GARMASH 06	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<16	90	[3] AUBERT,B 05N	BABR	Repl. by AUBERT 08AI
< 2.3	90	[4] GARMASH 05	BELL	Repl. by GARMASH 06

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T00;LINKAGE=EP

[2] AUBERT 08AI reports $(0.50\pm0.15^{+0.15}_{-0.11})\times10^{-6}$ for $B(B^+ \to f_2(1270) K^+) \times B(f_2 \to \pi^+\pi^-)$. We compute $B(B^+ \to f_2(1270) K^+)$ using the PDG value $B(f_2(1270) \to \pi\pi)=(84.3^{+2.8}_{-1.0}) \times 10^{-2}$ and 2/3 for the $\pi^+\pi^-$ fraction. Our first error is their experiment's error and the second error is systematic error from using our best value. NODE=S041T00;LINKAGE=UB

[3] AUBERT,B 05N reports 8.9×10^{-6} at 90% CL for $B(B^+ \to f_2(1270) K^+) \times B(f_2(1270) \to \pi^+\pi^-)$. We rescaled it using the PDG value $B(f_2(1270) \to \pi\pi) = 84.7\%$ and 2/3 for the $\pi^+\pi^-$ fraction. NODE=S041T00;LINKAGE=AT

[4] GARMASH 05 reports 1.3×10^{-6} at 90% CL for $B(B^+ \to f_2(1270) K^+) \times B(f_2(1270) \to \pi^+\pi^-)$. We rescaled it using the PDG value $B(f_2(1270) \to \pi\pi) = 84.7\%$ and 2/3 for the $\pi^+\pi^-$ fraction. NODE=S041T00;LINKAGE=GA

$\Gamma(f_0(1370)^0 K^+ \times B(f_0(1370)^0 \to \pi^+\pi^-))/\Gamma_{total}$ Γ_{455}/Γ

NODE=S041T01

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<10.7 × 10^{-6}	90	[1] AUBERT,B	05N	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T01;LINKAGE=EP

$\Gamma(\rho(14500) K^+ \times B(\rho(1450)^0 \to \pi^+\pi^-))/\Gamma_{total}$ Γ_{456}/Γ

NODE=S041T02

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<11.7 × 10^{-6}	90	[1] AUBERT,B	05N	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T02;LINKAGE=EP

$\Gamma(f'_2(1525) K^+ \times B(f'_2(1525) \to \pi^+\pi^-))/\Gamma_{total}$ Γ_{457}/Γ

NODE=S041T04

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<3.4 × 10^{-6}	90	[1] AUBERT,B	05N	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T04;LINKAGE=EP

$\Gamma(K^+\rho^0)/\Gamma_{total}$ Γ_{458}/Γ

NODE=S041R7

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
3.7 ±0.5 OUR AVERAGE					
$3.56\pm0.45^{+0.57}_{-0.46}$		[1] AUBERT	08AI	BABR	$e^+e^- \to \Upsilon(4S)$
$3.89\pm0.47^{+0.43}_{-0.41}$		[1] GARMASH	06	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$5.07\pm0.75^{+0.55}_{-0.88}$		[1] AUBERT,B	05N	BABR	Repl. by AUBERT 08AI
$4.78\pm0.75^{+1.01}_{-0.97}$		[1] GARMASH	05	BELL	Repl. by GARMASH 06
< 6.2	90	[2] AUBERT,B	04P	BABR	Repl. by AUBERT,B 05N
< 12	90	[3] GARMASH	02	BELL	$e^+e^- \to \Upsilon(4S)$
< 86	90	[4] ABE	00C	SLD	$e^+e^- \to Z$
< 17	90	[1] JESSOP	00	CLE2	$e^+e^- \to \Upsilon(4S)$
<120	90	[5] ADAM	96D	DLPH	$e^+e^- \to Z$
< 19	90	ASNER	96	CLE2	Repl. by JESSOP 00
<190	90	[5] ABREU	95N	DLPH	Sup. by ADAM 96D
<180	90	ALBRECHT	91B	ARG	$e^+e^- \to \Upsilon(4S)$
< 80	90	[6] AVERY	89B	CLEO	$e^+e^- \to \Upsilon(4S)$
<260	90	AVERY	87	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R7;LINKAGE=EP

[2] AUBERT 04P reports a central value of $(3.9 \pm 1.2^{+1.3}_{-3.5}) \times 10^{-6}$ for this branching ratio.

NODE=S041R7;LINKAGE=AU

[3] Uses a reference decay mode $B^+ \to \overline{D}^0\pi^+$ and $\overline{D}^0 \to K^+\pi^-$ with $B(B^+ \to \overline{D}^0\pi^+) \cdot B(\overline{D}^0 \to K^+\pi^-) = (20.3 \pm 2.0) \times 10^{-5}$.

NODE=S041R7;LINKAGE=GM

[4] ABE 00C assumes $B(Z \to b\overline{b})=(21.7 \pm 0.1)\%$ and the B fractions $f_{B^0}=f_{B^+}=(39.7^{+1.8}_{-2.2})\%$ and $f_{B_s}=(10.5^{+1.8}_{-2.2})\%$.

NODE=S041R7;LINKAGE=KQ

[5] Assumes production fractions $f_{B^0} = f_{B^-} = 0.39$ and $f_{B_s} = 0.12$.

NODE=S041R7;LINKAGE=DQ

[6] AVERY 89B reports $< 7 \times 10^{-5}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%.

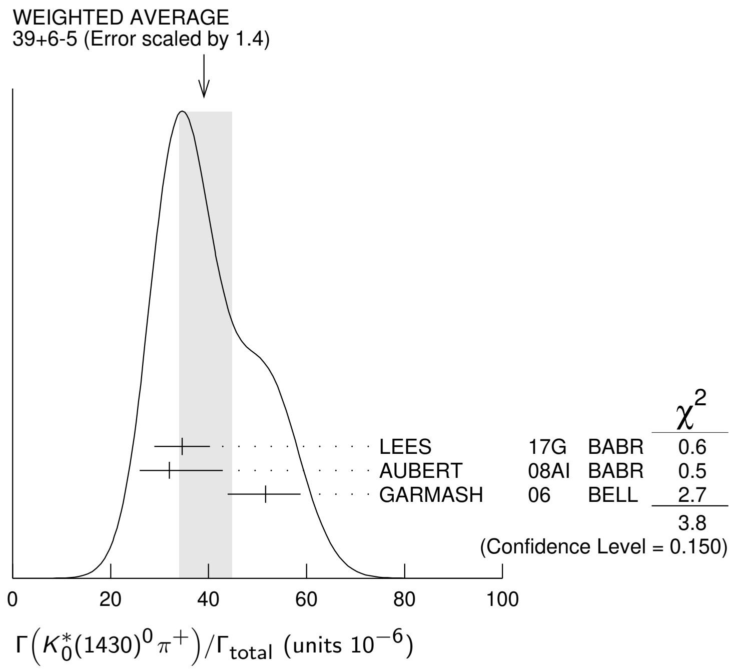
NODE=S041R7;LINKAGE=A1

$\Gamma(K_0^*(1430)^0\pi^+)/\Gamma_{total}$ Γ_{459}/Γ

NODE=S041S08

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$39\ ^{+6}_{-5}$ OUR AVERAGE Error includes scale factor of 1.4. See the ideogram below.				
$34.6\pm3.3\pm\ 4.6$	[1] LEES	17G	BABR	$e^+e^- \to \Upsilon(4S)$
$32.0\pm1.2^{+10.8}_{-\ 6.0}$	[2] AUBERT	08AI	BABR	$e^+e^- \to \Upsilon(4S)$
$51.6\pm1.7^{+\ 7.0}_{-\ 7.5}$	[2] GARMASH	06	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$44.4\pm2.2\pm\ 5.3$	[2,3] AUBERT,B	05N	BABR	Repl. by AUBERT 08AI
$45.0\pm2.9^{+15.0}_{-10.7}$	[2] GARMASH	05	BELL	Repl. by GARMASH 06

[1] Obtains the result from a Dalitz analysis of $B^+ \to K^0_S \pi^+ \pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling. NODE=S041S08;LINKAGE=A
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S08;LINKAGE=EP
[3] See erratum: AUBERT,BE 06A. NODE=S041S08;LINKAGE=ER



$\Gamma\left(K_2^*(1430)^0\pi^+\right)/\Gamma_{total}$ Γ_{460}/Γ

NODE=S041R72
NODE=S041R72

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$5.6^{+2.2}_{-1.5}\pm0.1$		[1,2] AUBERT	08AI	BABR	$e^+e^- \to \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

$<$ 23	90	[3] AUBERT,B	05N	BABR	Repl. by AUBERT 08AI
$<$ 6.9	90	[4] GARMASH	05	BELL	$e^+e^- \to \Upsilon(4S)$
$<$680	90	ALBRECHT	91B	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R72;LINKAGE=EP
[2] AUBERT 08AI reports $(1.85 \pm 0.41^{+0.61}_{-0.29}) \times 10^{-6}$ for $B(B^+ \to K_2^*(1430)^0\pi^+) \times B(K_2^*(1430)^0 \to K^+\pi^-)$. We compute $B(B^+ \to K_2^*(1430)^0\pi^+)$ using the PDG value $B(K_2^*(1430)^0 \to K\pi)=(49.9 \pm 1.2) \times 10^{-2}$ and 2/3 for the $K^+\pi^-$ fraction. Our first error is their experiment's error and the second error is systematic error from using our best value. NODE=S041R72;LINKAGE=UB
[3] AUBERT,B 05N reports 7.7×10^{-6} at 90% CL for $B(B^+ \to K_2^*(1430)^0\pi^+) \times B(K_2^*(1430)^0 \to K^+\pi^-)$. We rescaled it using the PDG value $B(K_2^*(1430)^0 \to K\pi) = 49.9\%$ and 2/3 for the $K^+\pi^-$ fraction. NODE=S041R72;LINKAGE=AT
[4] GARMASH 05 reports 2.3×10^{-6} at 90% CL for $B(B^+ \to K_2^*(1430)^0\pi^+) \times B(K_2^*(1430)^0 \to K^+\pi^-)$. We rescaled it using the PDG value $B(K_2^*(1430)^0 \to K\pi) = 49.9\%$ and 2/3 for the $K^+\pi^-$ mode. NODE=S041R72;LINKAGE=GA

$\Gamma\left(K^*(1410)^0\pi^+\right)/\Gamma_{total}$ Γ_{461}/Γ

NODE=S041Q64
NODE=S041Q64

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<45	90	[1] GARMASH	05	BELL	$e^+e^- \to \Upsilon(4S)$

[1] GARMASH 05 reports 2.0×10^{-6} at 90% CL for $B(B^+ \to K^*(1410)^0\pi^+) \times B(K^*(1410)^0 \to K^+\pi^-)$. We rescaled it using the PDG value $B(K^*(1410)^0 \to K\pi) = 6.6\%$ and 2/3 for the $K^+\pi^-$ mode. NODE=S041Q64;LINKAGE=GA

$\Gamma\left(K^*(1680)^0\pi^+\right)/\Gamma_{total}$ Γ_{462}/Γ

NODE=S041S09
NODE=S041S09

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<12	90	[1] GARMASH	05	BELL	$e^+e^- \to \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

<15	90	[2] AUBERT,B	05N	BABR	$e^+e^- \to \Upsilon(4S)$

[1] GARMASH 05 reports 3.1×10^{-6} at 90% CL for B($B^+ \to K^*(1680)^0 \pi^+$) $\times$ B($K^*(1680)^0 \to K^+ \pi^-$). We rescaled it using the PDG value B($K^*(1680)^0 \to K\pi$) = 38.7% and 2/3 for the $K^+ \pi^-$ mode. NODE=S041S09;LINKAGE=GA

[2] AUBERT,B 05N reports 3.8×10^{-6} at 90% CL for B($B^+ \to K^*(1680)^0 \pi^+$) $\times$ B($K^*(1680)^0 \to K^+ \pi^-$). We rescaled it using the PDG value B($K^*(1680)^0 \to K\pi$) = 38.7% and 2/3 for the $K^+ \pi^-$ fraction. NODE=S041S09;LINKAGE=AT

$\Gamma(K^+ \pi^0 \pi^0)/\Gamma_{total}$ Γ_{463}/Γ

NODE=S041T74
NODE=S041T74

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
16.2±1.2±1.5	[1] LEES	11I	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T74;LINKAGE=EP

$\Gamma(f_0(980) K^+ \times B(f_0 \to \pi^0 \pi^0))/\Gamma_{total}$ Γ_{464}/Γ

NODE=S041T75
NODE=S041T75

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
2.8±0.6±0.5	[1] LEES	11I	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T75;LINKAGE=EP

$\Gamma(K^- \pi^+ \pi^+)/\Gamma_{total}$ Γ_{465}/Γ

NODE=S041B61
NODE=S041B61

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<4.6 × 10⁻⁸	90	AAIJ	17E	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<9.5 \times 10^{-7}$	90	[1] AUBERT	08BE	BABR	$e^+ e^- \to \Upsilon(4S)$
$<4.5 \times 10^{-6}$	90	[1] GARMASH	04	BELL	$e^+ e^- \to \Upsilon(4S)$
$<1.8 \times 10^{-6}$	90	[2] AUBERT	03M	BABR	Repl. by AUBERT 08BE
$<7.0 \times 10^{-6}$	90	[3] GARMASH	02	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B61;LINKAGE=EP

[2] Assumes equal production of B^0 and B^+ at the $\Upsilon(4S)$; charm and charmonium contributions are subtracted, otherwise no assumptions about intermediate resonances. NODE=S041B61;LINKAGE=TM

[3] Uses a reference decay mode $B^+ \to \overline{D}^0 \pi^+$ and $\overline{D}^0 \to K^+ \pi^-$ with B($B^+ \to \overline{D}^0 \pi^+$)·B($\overline{D}^0 \to K^+ \pi^-$) = $(20.3 \pm 2.0) \times 10^{-5}$. NODE=S041B61;LINKAGE=GM

$\Gamma(K^- \pi^+ \pi^+ \text{ nonresonant})/\Gamma_{total}$ Γ_{466}/Γ

NODE=S041B3
NODE=S041B3

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<56	90	BERGFELD	96B	CLE2	$e^+ e^- \to \Upsilon(4S)$

$\Gamma(K_1(1270)^0 \pi^+)/\Gamma_{total}$ Γ_{467}/Γ

NODE=S041T62
NODE=S041T62

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<4.0 × 10⁻⁵	90	[1] AUBERT	10D	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T62;LINKAGE=EP

$\Gamma(K_1(1400)^0 \pi^+)/\Gamma_{total}$ Γ_{468}/Γ

NODE=S041R71
NODE=S041R71

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<3.9 × 10⁻⁵	90	[1] AUBERT	10D	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<2.6 \times 10^{-3}$	90	ALBRECHT	91B	ARG	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R71;LINKAGE=EP

$\Gamma(K^0 \pi^+ \pi^0)/\Gamma_{total}$ Γ_{469}/Γ

NODE=S041B82
NODE=S041B82

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$31.8 \pm 1.8^{+6.3}_{-2.1}$		[1] LEES	17G	BABR	$e^+ e^- \to \Upsilon(4S)$
<66	90	[2] ECKHART	02	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] Obtains the result from a Dalitz analysis of $B^+ \to K^0_S \pi^+ \pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling. NODE=S041B82;LINKAGE=A

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B82;LINKAGE=EP

$\Gamma(K^0\rho^+)/\Gamma_{total}$ — Γ_{471}/Γ

NODE=S041R98

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{7.3^{+1.0}_{-1.2}}$ **OUR AVERAGE**					
$6.5\pm1.1^{+0.8}_{-1.9}$		[1] LEES	17G	BABR	$e^+e^- \to \Upsilon(4S)$
$8.0^{+1.4}_{-1.3}\pm0.6$		AUBERT	07Z	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<48	90	ASNER	96	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Obtains the result from a Dalitz analysis of $B^+ \to K^0_S\pi^+\pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling.

NODE=S041R98;LINKAGE=A

$\Gamma(K^*_0(1430)^+\pi^0)/\Gamma_{total}$ — Γ_{470}/Γ

NODE=S041P48

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$\mathbf{11.9\pm1.7^{+1.0}_{-1.6}}$	[1] LEES	17G	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Obtains the result from a Dalitz analysis of $B^+ \to K^0_S\pi^+\pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling.

NODE=S041P48;LINKAGE=A

$\Gamma(K^*(892)^+\pi^+\pi^-)/\Gamma_{total}$ — Γ_{472}/Γ

NODE=S041R83

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{75.3\pm6.0\pm8.1}$		[1] AUBERT,B	06U	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1100	90	ALBRECHT	91E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R83;LINKAGE=EP

$\Gamma(K^*(892)^+\rho^0)/\Gamma_{total}$ — Γ_{473}/Γ

NODE=S041R73

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{4.6\pm1.0\pm0.4}$		[1] DEL-AMO-SA..11D		BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<6.1	90	[1] AUBERT,B	06G	BABR	Repl. by DEL-AMO-SANCHEZ 11D
$10.6^{+3.0}_{-2.6}\pm2.4$		[1] AUBERT	03V	BABR	Repl. by AUBERT,B 06G
<74	90	[2] GODANG	02	CLE2	$e^+e^- \to \Upsilon(4S)$
<900	90	ALBRECHT	91B	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R73;LINKAGE=EP

[2] Assumes a helicity 00 configuration. For a helicity 11 configuration, the limit decreases to 4.9×10^{-5}.

NODE=S041R73;LINKAGE=Z1

$\Gamma(K^*(892)^+f_0(980))/\Gamma_{total}$ — Γ_{474}/Γ

NODE=S041T15

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$\mathbf{4.2\pm0.6\pm0.3}$	[1] DEL-AMO-SA..11D		BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$5.2\pm1.2\pm0.5$	[1] AUBERT,B	06G	BABR	Repl. by DEL-AMO-SANCHEZ 11D

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T15;LINKAGE=EP

$\Gamma(a_1^+K^0)/\Gamma_{total}$ — Γ_{475}/Γ

NODE=S041T23

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$\mathbf{34.9\pm5.0\pm4.4}$	[1,2] AUBERT	08F	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T23;LINKAGE=EP

[2] Assumes $a_1^\pm$ decays only to 3π and $B(a_1^\pm \to \pi^\pm\pi^\mp\pi^\pm) = 0.5$.

NODE=S041T23;LINKAGE=UB

$\Gamma(b_1^+K^0\times B(b_1^+\to\omega\pi^+))/\Gamma_{total}$ — Γ_{476}/Γ

NODE=S041T36

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$\mathbf{9.6\pm1.7\pm0.9}$	[1] AUBERT	08AG	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T36;LINKAGE=EP

$\Gamma(K^*(892)^0 \rho^+)/\Gamma_{total}$ — Γ_{477}/Γ

NODE=S041S07

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
9.2±1.5 OUR AVERAGE				
9.6±1.7±1.5	[1] AUBERT,B	06G	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
8.9±1.7±1.2	[1] ZHANG	05D	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041S07;LINKAGE=EP

$\Gamma(K_1(1400)^+ \rho^0)/\Gamma_{total}$ — Γ_{478}/Γ

NODE=S041R74

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<7.8 × 10^{-4}	90	ALBRECHT	91B	ARG	$e^+ e^- \rightarrow \Upsilon(4S)$

$\Gamma(K_2^*(1430)^+ \rho^0)/\Gamma_{total}$ — Γ_{479}/Γ

NODE=S041R75

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.5 × 10^{-3}	90	ALBRECHT	91B	ARG	$e^+ e^- \rightarrow \Upsilon(4S)$

$\Gamma(b_1^0 K^+ \times B(b_1^0 \rightarrow \omega\pi^0))/\Gamma_{total}$ — Γ_{480}/Γ

NODE=S041T26

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
9.1±1.7±1.0	[1] AUBERT	07BI	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T26;LINKAGE=EP

$\Gamma(b_1^+ K^{*0} \times B(b_1^+ \rightarrow \omega\pi^+))/\Gamma_{total}$ — Γ_{481}/Γ

NODE=S041T56

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<5.9 × 10^{-6}	90	[1] AUBERT	09AF	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T56;LINKAGE=EP

$\Gamma(b_1^0 K^{*+} \times B(b_1^0 \rightarrow \omega\pi^0))/\Gamma_{total}$ — Γ_{482}/Γ

NODE=S041T57

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<6.7 × 10^{-6}	90	[1] AUBERT	09AF	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T57;LINKAGE=EP

$\Gamma(K^+ \overline{K}^0)/\Gamma_{total}$ — Γ_{483}/Γ

NODE=S041B16

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
1.32±0.17 OUR FIT Error includes scale factor of 1.2.					
1.19±0.18 OUR AVERAGE					
1.11±0.19±0.05		[1] DUH	13	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
1.61±0.44±0.09		[1] AUBERT,BE	06C	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$1.22^{+0.32+0.13}_{-0.28-0.16}$		[1] LIN	07	BELL	Repl. by DUH 13
1.0 ±0.4 ±0.1		[1] ABE	05G	BELL	Repl. by LIN 07
1.5 ±0.5 ±0.1		[1] AUBERT,BE	05E	BABR	Repl. by AUBERT,BE 06C
< 2.5	90	[1] AUBERT	04M	BABR	Repl. by AUBERT,BE 05E
< 3.3	90	[1] CHAO	04	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
< 3.3	90	[1] BORNHEIM	03	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
< 2.0	90	[1] CASEY	02	BELL	Repl. by CHAO 04
< 5.0	90	[1] ABE	01H	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
< 2.4	90	[1] AUBERT	01E	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
< 5.1	90	[1] CRONIN-HEN...	00	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
<21	90	GODANG	98	CLE2	Repl. by CRONIN-HENNESSY 00

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B16;LINKAGE=EP

$\Gamma(K^+ \overline{K}^0)/\Gamma(K^0 \pi^+)$ — $\Gamma_{483}/\Gamma_{411}$

NODE=S041C56

VALUE	DOCUMENT ID		TECN	COMMENT
0.055±0.007 OUR FIT Error includes scale factor of 1.2.				
0.064±0.009±0.004	AAIJ	13BS	LHCB	pp at 7 TeV

$\Gamma(\overline{K}^0 K^+ \pi^0)/\Gamma_{total}$ — Γ_{484}/Γ

NODE=S041B83

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<24 × 10^{-6}	90	[1] ECKHART	02	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B83;LINKAGE=EP

$\Gamma(K^+ K^0_S K^0_S)/\Gamma_{total}$ — Γ_{485}/Γ

NODE=S041C6
NODE=S041C6

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
10.5 ±0.4 OUR AVERAGE				
10.42±0.43±0.22	[1] KALIYAR	19	BELL	$e^+ e^- \to \Upsilon(4S)$
10.6 ±0.5 ±0.3	[1,2] LEES	12O	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
10.7 ±1.2 ±1.0	[1] AUBERT,B	04V	BABR	Repl. by LEES 12O
13.4 ±1.9 ±1.5	[1] GARMASH	04	BELL	Repl. by KALIYAR 19

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C6;LINKAGE=EP

[2] All intermediate charmonium and charm resonances are removed, except of χ_{c0}. NODE=S041C6;LINKAGE=LE

$\Gamma(f_0(980) K^+,\ f_0 \to K^0_S K^0_S)/\Gamma_{total}$ — Γ_{486}/Γ

NODE=S041T88
NODE=S041T88

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
14.7±2.8±1.8	[1] LEES	12O	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T88;LINKAGE=EP

$\Gamma(f_0(1710) K^+,\ f_0 \to K^0_S K^0_S)/\Gamma_{total}$ — Γ_{487}/Γ

NODE=S041T89
NODE=S041T89

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.48^{+0.40}_{-0.24}\pm0.11}$	[1] LEES	12O	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T89;LINKAGE=EP

$\Gamma(K^+ K^0_S K^0_S \text{ nonresonant})/\Gamma_{total}$ — Γ_{488}/Γ

NODE=S041T90
NODE=S041T90

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
19.8±3.7±2.5	[1] LEES	12O	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T90;LINKAGE=EP

$\Gamma(K^0_S K^0_S \pi^+)/\Gamma_{total}$ — Γ_{489}/Γ

NODE=S041C7
NODE=S041C7

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{<5.1 \times 10^{-7}}$	90	[1] AUBERT	09J	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<8.7 \times 10^{-7}$		[1] KALIYAR	19	BELL	$e^+ e^- \to \Upsilon(4S)$
$<3.2 \times 10^{-6}$	90	[1] GARMASH	04	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C7;LINKAGE=EP

$\Gamma(K^+ K^- \pi^+)/\Gamma(K^+ K^- K^+)$ — $\Gamma_{490}/\Gamma_{503}$

NODE=S041P99
NODE=S041P99

VALUE	DOCUMENT ID		TECN	COMMENT
0.151±0.004±0.008	AAIJ	20AJ	LHCB	pp at 7 and 8 TeV

$\Gamma(K^+ K^- \pi^+)/\Gamma_{total}$ — Γ_{490}/Γ

NODE=S041B62
NODE=S041B62

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
5.2 ±0.4 OUR AVERAGE					
5.38±0.40±0.35		[1,2] HSU	17	BELL	$e^+ e^- \to \Upsilon(4S)$
5.0 ±0.5 ±0.5		[2] AUBERT	07BB	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<13	90	[2] GARMASH	04	BELL	$e^+ e^- \to \Upsilon(4S)$
< 6.3	90	[2,3] AUBERT	03M	BABR	Repl. by AUBERT 07BB
<12	90	[4] GARMASH	02	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] HSU 17 provides also measurement as a function of $K^+ K^-$ invariant mass. NODE=S041B62;LINKAGE=A

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B62;LINKAGE=EP

[3] Charm and charmonium contributions are subtracted, otherwise no assumptions about intermediate resonances. NODE=S041B62;LINKAGE=TM

[4] Uses a reference decay mode $B^+ \to \overline{D}^0 \pi^+$ and $\overline{D}^0 \to K^+ \pi^-$ with B($B^+ \to \overline{D}^0 \pi^+$)·B($\overline{D}^0 \to K^+ \pi^-$) = $(20.3 \pm 2.0) \times 10^{-5}$. NODE=S041B62;LINKAGE=GM

$\Gamma(K^+ K^- \pi^+ \text{ nonresonant})/\Gamma_{total}$ — Γ_{491}/Γ

NODE=S041B4
NODE=S041B4

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
1.68±0.23±0.13		[1] AAIJ	19AL	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<75	90	BERGFELD	96B	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] AAIJ 19AL reports $0.323 \pm 0.015 \pm 0.041$ fit fraction for $B^+ \to K^+ K^- \pi^+$ nonresonant from the amplitude analysis of $B^\pm \to \pi^\pm K^+ K^-$ decays. We use the PDG 19 value B($B^+ \to K^+ K^- \pi^+$) = $(5.2 \pm 0.4) \times 10^{-6}$ to obtain B($B^+ \to K^+ K^- \pi^+$ nonresonant). Our first error is the experiment's error and the second error is systematic error from using our best value. NODE=S041B4;LINKAGE=A

$\Gamma(K^+ \overline{K}^*(892)^0)/\Gamma_{total}$ Γ_{492}/Γ

NODE=S041B38
NODE=S041B38

VALUE (units 10^{-7})	CL%	DOCUMENT ID		TECN	COMMENT
5.9±0.6±0.5		[1] AAIJ	19AL	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
< 11	90	[2] AUBERT	07AR	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
<1290	90	ABBIENDI	00B	OPAL	$e^+e^- \rightarrow Z$
<1380	90	[3] ABE	00C	SLD	$e^+e^- \rightarrow Z$
< 53	90	[2] JESSOP	00	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$

[1] AAIJ 19AL reports $(7.5 \pm 0.6 \pm 0.5) \times 10^{-2}$ fit fraction for $B^+ \rightarrow K^+ \overline{K}^*(892)^0$ from the amplitude analysis of $B^\pm \rightarrow \pi^\pm K^+ K^-$ decays. We use the PDG 19 value $B(B^+ \rightarrow K^+ K^- \pi^+) = (5.2 \pm 0.4) \times 10^{-6}$ to obtain $B(B^+ \rightarrow K^+ \overline{K}^*(892)^0, \overline{K}^*(892)^0 \rightarrow K^+ \pi^-)$. We compute $B(B^+ \rightarrow K^+ \overline{K}^*(892)^0)$ using 2/3 of $B(\overline{K}^*(892)^0 \rightarrow (K\pi)^0)$ = (99.754 ± 0.021)% for the $K^+\pi^-$ fraction. Our first error is the experiment's error and the second error is systematic error from using our best value. NODE=S041B38;LINKAGE=A

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B38;LINKAGE=EP

[3] ABE 00C assumes $B(Z \rightarrow b\overline{b})$=(21.7 ± 0.1)% and the B fractions $f_{B^0}=f_{B^+}=(39.7^{+1.8}_{-2.2})$% and $f_{B_s}=(10.5^{+1.8}_{-2.2})$%. NODE=S041B38;LINKAGE=KQ

$\Gamma(K^+ \overline{K}^*_0(1430)^0)/\Gamma_{total}$ Γ_{493}/Γ

NODE=S041C04
NODE=S041C04

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
0.38±0.12±0.05		[1] AAIJ	19AL	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.2	90	[2] AUBERT	07AR	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

OCCUR=2

[1] AAIJ 19AL reports $(4.5 \pm 0.7 \pm 1.2) \times 10^{-2}$ for fit fraction for $B^+ \rightarrow K^+ \overline{K}^*_0(1430)^0$ from the amplitude analysis of $B^\pm \rightarrow \pi^\pm K^+ K^-$ decays. We use the PDG 19 value $B(B^+ \rightarrow K^+ K^- \pi^+) = (5.2 \pm 0.4) \times 10^{-6}$ to obtain $B(B^+ \rightarrow K^+ \overline{K}^*_0(1430)^0, \overline{K}^*_0(1430)^0 \rightarrow K^+ \pi^-)$. We compute $B(B^+ \rightarrow K^+ \overline{K}^*_0(1430)^0)$ using 2/3 of PDG 19 value $B(K^*_0(1430)^0 \rightarrow K\pi)$ = (93 ± 10)% for the $K^+\pi^-$ fraction. Our first error is the experiment's error and the second error is systematic error from using our best value. NODE=S041C04;LINKAGE=B

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C04;LINKAGE=EP

$\Gamma(\rho(1450)^0\pi^+, \rho^0 \rightarrow K^+K^-)/\Gamma_{total}$ Γ_{560}/Γ

NODE=S041P74
NODE=S041P74

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
1.60±0.08±0.12	[1] AAIJ	19AL	LHCB	pp at 7, 8 TeV

OCCUR=2

[1] AAIJ 19AL reports 0.307 ± 0.012 ± 0.009 fit fraction for $B^+ \rightarrow \rho(1450)\pi^+$ from the amplitude analysis of $B^\pm \rightarrow \pi^\pm K^+ K^-$ decays. We use the PDG 19 value $B(B^+ \rightarrow K^+ K^- \pi^+) = (5.2 \pm 0.4) \times 10^{-6}$ to obtain $B(B^+ \rightarrow \rho(1450)\pi^+, \rho(1450) \rightarrow K^+K^-)$. Our first error is the experiment's error and the second error is systematic error from using our best value. NODE=S041P74;LINKAGE=B

$\Gamma(\pi^+(K^+K^-)_{S-wave})/\Gamma_{total}$ Γ_{494}/Γ

NODE=S041P76
NODE=S041P76

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
8.53±0.67±0.66	[1] AAIJ	19AL	LHCB	pp at 7, 8 TeV

[1] AAIJ 19AL reports 0.164 ± 0.008 ± 0.01 fit fraction for $B^+ \rightarrow \pi^+(K^+K^-)_{S-wave}$ in the region of 0.95 < m(K^+K^-) < 1.42 GeV/c^2 from the amplitude analysis of $B^\pm \rightarrow \pi^\pm K^+ K^-$ decays. We use the PDG 19 value $B(B^+ \rightarrow K^+ K^- \pi^+) = (5.2 \pm 0.4) \times 10^{-6}$ to obtain $B(B^+ \rightarrow \pi^+(K^+K^-)_{S-wave})$. Our first error is the experiment's error and the second error is systematic error from using our best value. NODE=S041P76;LINKAGE=A

$\Gamma(\pi^+K^+K^-, m_{K^+K^-} < 1.1\text{ GeV})/\Gamma_{total}$ Γ_{495}/Γ

NODE=S041A81
NODE=S041A81

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
5.38±0.40±0.35	[1] HSU	23	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Investigated the angular distribution of K^+K^- pairs with invariant mass below 1.1 GeV/c^2, which exhibits both a strong enhancement in signal and very large direct CP violation. NODE=S041A81;LINKAGE=A

$\Gamma(K^+K^+\pi^-)/\Gamma_{total}$ Γ_{496}/Γ

NODE=S041B63
NODE=S041B63

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.1 × 10^{-8}	90	AAIJ	17E	LHCB	pp at 7, 8 TeV

• • • We do not use the following data for averages, fits, limits, etc. • • •

$<1.6 \times 10^{-7}$	90	[1] AUBERT	08BE	BABR	$e^+ e^- \to \Upsilon(4S)$
$<2.4 \times 10^{-6}$	90	[1] GARMASH	04	BELL	$e^+ e^- \to \Upsilon(4S)$
$<1.3 \times 10^{-6}$	90	[2] AUBERT	03M	BABR	Repl. by AUBERT 08BE
$<3.2 \times 10^{-6}$	90	[3] GARMASH	02	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B63;LINKAGE=EP

[2] Assumes equal production of B^0 and B^+ at the $\Upsilon(4S)$; charm and charmonium contributions are subtracted, otherwise no assumptions about intermediate resonances. NODE=S041B63;LINKAGE=TM

[3] Uses a reference decay mode $B^+ \to \overline{D}^0 \pi^+$ and $\overline{D}^0 \to K^+ \pi^-$ with $B(B^+ \to \overline{D}^0 \pi^+) \cdot B(\overline{D}^0 \to K^+ \pi^-) = (20.3 \pm 2.0) \times 10^{-5}$. NODE=S041B63;LINKAGE=GM

$\Gamma(K^+ K^+ \pi^- \text{ nonresonant})/\Gamma_{total}$ — Γ_{497}/Γ

NODE=S041B37
NODE=S041B37

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<87.9	90	ABBIENDI	00B	OPAL	$e^+ e^- \to Z$

$\Gamma(f'_2(1525) K^+)/\Gamma_{total}$ — Γ_{498}/Γ

NODE=S041Q67
NODE=S041Q67

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
1.8 ±0.5 OUR AVERAGE	Error includes scale factor of 1.1.				
$1.56 \pm 0.36 \pm 0.30$		[1,2] LEES	12O	BABR	$e^+ e^- \to \Upsilon(4S)$
$2.8 \pm 0.9 {}^{+0.5}_{-0.4}$		[1,3] LEES	12O	BABR	$e^+ e^- \to \Upsilon(4S)$ OCCUR=2
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<8	90	[1,4] GARMASH	05	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q67;LINKAGE=EP

[2] Measured in the $B^+ \to K^+ K^- K^+$ decay. NODE=S041Q67;LINKAGE=LA

[3] Measured in the $B^+ \to K^+ K^0_S K^0_S$ decay. NODE=S041Q67;LINKAGE=LB

[4] GARMASH 05 reports $B(B^+ \to f'_2(1525) K^+) \cdot B(f'_2(1525) \to K^+ K^-) < 4.9 \times 10^{-6}$ at 90% CL. We divide this result by our best value of $B(f'_2(1525) \to K\overline{K}) = 88.8 \times 10^{-2}$ multiplied by 2/3 to account for the $K^+ K^-$ fraction. NODE=S041Q67;LINKAGE=GA

$\Gamma(K^+ f_J(2220))/\Gamma_{total}$ — Γ_{499}/Γ

NODE=S041C9
NODE=S041C9

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
not seen	[1] HUANG	03	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] No evidence is found for such decay and set a limit on $B(B^+ \to f_J(2220)) \times B(f_J(2220) \to \phi\phi) < 1.2 \times 10^{-6}$ at 90%CL where the $f_J(2220)$ is a possible glueball state. NODE=S041C9;LINKAGE=A

$\Gamma(K^{*+} \pi^+ K^-)/\Gamma_{total}$ — Γ_{500}/Γ

NODE=S041T13
NODE=S041T13

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<11.8	90	[1] AUBERT,B	06U	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T13;LINKAGE=EP

$\Gamma(K^*(892)^+ K^*(892)^0)/\Gamma_{total}$ — Γ_{501}/Γ

NODE=S041B55
NODE=S041B55

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
0.91±0.29 OUR AVERAGE					
$0.77^{+0.35}_{-0.30} \pm 0.12$		[1] GOH	15	BELL	$e^+ e^- \to \Upsilon(4S)$
$1.2 \pm 0.5 \pm 0.1$		[2] AUBERT	09F	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<71	90	[3] GODANG	02	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] Signal significance is 2.7 standard deviations. This measurement corresponds to an upper limit of $< 1.31 \times 10^{-6}$ at 90% CL. NODE=S041B55;LINKAGE=A

[2] Signal signicance is 3.7 standard deviations. NODE=S041B55;LINKAGE=B

[3] Assumes a helicity 00 configuration. For a helicity 11 configuration, the limit decreases to 4.8×10^{-5}. NODE=S041B55;LINKAGE=Z1

$\Gamma(K^{*+} K^+ \pi^-)/\Gamma_{total}$ — Γ_{502}/Γ

NODE=S041T14
NODE=S041T14

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<6.1	90	[1] AUBERT,B	06U	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T14;LINKAGE=EP

$\Gamma(K^+K^-K^+)/\Gamma_{total}$ Γ_{503}/Γ

NODE=S041R80

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
34.0±1.4 OUR AVERAGE		Error includes scale factor of 1.4.			
34.6±0.6±0.9		[1,2] LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$
30.6±1.2±2.3		[1] GARMASH	05	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
35.2±0.9±1.6		[1] AUBERT	06O	BABR	Repl. by LEES 12O
32.8±1.8±2.8		[1] GARMASH	04	BELL	Repl. by GARMASH 05
29.6±2.1±1.6		[3] AUBERT	03M	BABR	Repl. by AUBERT 06O
35.3±3.7±4.5		[4] GARMASH	02	BELL	Repl. by GARMASH 04
<200	90	[5] ADAM	96D	DLPH	$e^+e^- \to Z$
<320	90	[5] ABREU	95N	DLPH	Sup. by ADAM 96D
<350	90	ALBRECHT	91E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R80;LINKAGE=EP

[2] All intermediate charmonium and charm resonances are removed, except of χ_{c0}. NODE=S041R80;LINKAGE=LE

[3] Assumes equal production of B^0 and B^+ at the $\Upsilon(4S)$; charm and charmonium contributions are subtracted, otherwise no assumptions about intermediate resonances. NODE=S041R80;LINKAGE=TM

[4] Uses a reference decay mode $B^+ \to \overline{D}^0\pi^+$ and $\overline{D}^0 \to K^+\pi^-$ with $B(B^+ \to \overline{D}^0\pi^+)\cdot B(\overline{D}^0 \to K^+\pi^-) = (20.3 \pm 2.0) \times 10^{-5}$. NODE=S041R80;LINKAGE=GM

[5] Assumes B^0 and B^- production fractions of 0.39, and B_s production fraction of 0.12. NODE=S041R80;LINKAGE=SR

$\Gamma(K^+\phi)/\Gamma_{total}$ Γ_{504}/Γ

NODE=S041R8

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$8.8^{+0.7}_{-0.6}$ OUR AVERAGE		Error includes scale factor of 1.1.			
$9.2 \pm 0.4 ^{+0.7}_{-0.5}$		[1] LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$
$7.6 \pm 1.3 \pm 0.6$		[2] ACOSTA	05J	CDF	$p\overline{p}$ at 1.96 TeV
$9.60 \pm 0.92 ^{+1.05}_{-0.85}$		[1] GARMASH	05	BELL	$e^+e^- \to \Upsilon(4S)$
$5.5 ^{+2.1}_{-1.8} \pm 0.6$		[1] BRIERE	01	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$8.4 \pm 0.7 \pm 0.7$		[1] AUBERT	06O	BABR	Repl. by LEES 12O
$10.0 ^{+0.9}_{-0.8} \pm 0.5$		[1] AUBERT	04A	BABR	Repl. by AUBERT 06O
$9.4 \pm 1.1 \pm 0.7$		[1] CHEN	03B	BELL	Repl. by GARMASH 05
$14.6 ^{+3.0}_{-2.8} \pm 2.0$		[3] GARMASH	02	BELL	Repl. by CHEN 03B
$7.7 ^{+1.6}_{-1.4} \pm 0.8$		[1] AUBERT	01D	BABR	$e^+e^- \to \Upsilon(4S)$
<144	90	[4] ABE	00C	SLD	$e^+e^- \to Z$
< 5	90	[1] BERGFELD	98	CLE2	
<280	90	[5] ADAM	96D	DLPH	$e^+e^- \to Z$
< 12	90	ASNER	96	CLE2	$e^+e^- \to \Upsilon(4S)$
<440	90	[6] ABREU	95N	DLPH	Sup. by ADAM 96D
<180	90	ALBRECHT	91B	ARG	$e^+e^- \to \Upsilon(4S)$
< 90	90	[7] AVERY	89B	CLEO	$e^+e^- \to \Upsilon(4S)$
<210	90	AVERY	87	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R8;LINKAGE=EP

[2] Uses $B(B^+ \to J/\psi K^+) = (1.00 \pm 0.04) \times 10^{-3}$ and $B(J/\psi \to \mu^+\mu^-) = 0.0588 \pm 0.0010$. NODE=S041R8;LINKAGE=AC

[3] Uses a reference decay mode $B^+ \to \overline{D}^0\pi^+$ and $\overline{D}^0 \to K^+\pi^-$ with $B(B^+ \to \overline{D}^0\pi^+)\cdot B(\overline{D}^0 \to K^+\pi^-) = (20.3 \pm 2.0) \times 10^{-5}$. NODE=S041R8;LINKAGE=GM

[4] ABE 00C assumes $B(Z \to b\overline{b})=(21.7 \pm 0.1)\%$ and the B fractions $f_{B^0}=f_{B^+}=(39.7^{+1.8}_{-2.2})\%$ and $f_{B_s}=(10.5^{+1.8}_{-2.2})\%$. NODE=S041R8;LINKAGE=KQ

[5] ADAM 96D assumes $f_{B^0} = f_{B^-} = 0.39$ and $f_{B_s} = 0.12$. NODE=S041R8;LINKAGE=DQ

[6] Assumes a B^0, B^- production fraction of 0.39 and a B_s production fraction of 0.12. NODE=S041R8;LINKAGE=SR

[7] AVERY 89B reports $< 8 \times 10^{-5}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R8;LINKAGE=A1

$\Gamma(f_0(980)K^+ \times B(f_0(980) \to K^+K^-))/\Gamma_{total}$ Γ_{505}/Γ

NODE=S041Q65

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
9.4±1.6±2.8		[1] LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
6.5±2.5±1.6		[1] AUBERT	06O	BABR	$e^+e^- \to \Upsilon(4S)$
<2.9	90	[1] GARMASH	05	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q65;LINKAGE=EP

$\Gamma(a_2(1320)K^+ \times B(a_2(1320) \to K^+K^-))/\Gamma_{total}$ — Γ_{506}/Γ

NODE=S041Q66

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.1 × 10^{-6}	90	[1] GARMASH	05	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041Q66;LINKAGE=EP

$\Gamma(X_0(1550)K^+ \times B(X_0(1550) \to K^+K^-))/\Gamma_{total}$ — Γ_{507}/Γ

NODE=S041T09

$X_0(1550)$ is a possible spin zero state near 1.55 GeV/c^2 invariant mass of K^+K^-.

NODE=S041T09

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
4.3±0.6±0.3	[1] AUBERT	06O	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T09;LINKAGE=EP

$\Gamma(\phi(1680)K^+ \times B(\phi(1680) \to K^+K^-))/\Gamma_{total}$ — Γ_{508}/Γ

NODE=S041Q68

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.8 × 10^{-6}	90	[1] GARMASH	05	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041Q68;LINKAGE=EP

$\Gamma(f_0(1710)K^+ \times B(f_0(1710) \to K^+K^-))/\Gamma_{total}$ — Γ_{509}/Γ

NODE=S041T08

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
1.12±0.25±0.50	[1] LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1.7 ±1.0 ±0.3	[1] AUBERT	06O	BABR	Repl. by LEES 12O

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T08;LINKAGE=EP

$\Gamma(K^+K^-K^+ \text{ nonresonant})/\Gamma_{total}$ — Γ_{510}/Γ

NODE=S041B5

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$23.8^{+2.8}_{-5.0}$ OUR AVERAGE					
22.8±2.7±7.6		[1] LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$
$24.0\pm1.5^{+2.6}_{-6.0}$		[1] GARMASH	05	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
50.0±6.0±4.0		[1] AUBERT	06O	BABR	Repl. by LEES 12O
<38	90	BERGFELD	96B	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B5;LINKAGE=EP

$\Gamma(K^*(892)^+K^+K^-)/\Gamma_{total}$ — Γ_{511}/Γ

NODE=S041R84

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
36.2±3.3±3.6		[1] AUBERT,B	06U	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1600	90	ALBRECHT	91E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R84;LINKAGE=EP

$\Gamma(K^*(892)^+\phi)/\Gamma_{total}$ — Γ_{512}/Γ

NODE=S041R76

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
10.0±2.0 OUR AVERAGE		Error includes scale factor of 1.7.			
11.2±1.0±0.9		[1] AUBERT	07BA	BABR	$e^+e^- \to \Upsilon(4S)$
$6.7^{+2.1}_{-1.9}{}^{+0.7}_{-1.0}$		[1] CHEN	03B	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$12.7^{+2.2}_{-2.0}\pm1.1$		[1] AUBERT	03V	BABR	Repl. by AUBERT 07BA
$9.7^{+4.2}_{-3.4}\pm1.7$		[1] AUBERT	01D	BABR	Repl. by AUBERT 03V
< 22.5	90	[1] BRIERE	01	CLE2	$e^+e^- \to \Upsilon(4S)$
< 41	90	[1] BERGFELD	98	CLE2	
< 70	90	ASNER	96	CLE2	$e^+e^- \to \Upsilon(4S)$
<1300	90	ALBRECHT	91B	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R76;LINKAGE=EP

$\Gamma(K^0K^+K^-\pi^+)/\Gamma_{total}$ — Γ_{513}/Γ

NODE=S041D03

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
34.01±0.74±3.23	[1] AAIJ	23AH	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to J/\psi K^+$ uncertainties.

NODE=S041D03;LINKAGE=A

$\Gamma(J/\psi K^+,\ J/\psi \to K^0 K^- \pi^+)/\Gamma_{total}$ Γ_{514}/Γ NODE=S041D06

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
5.43±0.12±1.23	[1] AAIJ 23AH	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to \eta_c K^+$ uncertainties. NODE=S041D06;LINKAGE=A

$\Gamma(\chi_{c1} K^+,\ \chi_{c1} \to K^0 K^- \pi^+)/\Gamma_{total}$ Γ_{515}/Γ NODE=S041D07

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
2.25±0.11±0.22	[1] AAIJ 23AH	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to J/\psi K^+$ uncertainties. NODE=S041D07;LINKAGE=A

$\Gamma(\eta_c K^+,\ \eta_c \to K^0 K^- \pi^+)/\Gamma_{total}$ Γ_{516}/Γ NODE=S041D08

VALUE (units 10^{-5})	DOCUMENT ID	TECN	COMMENT
2.83±0.07±0.29	[1] AAIJ 23AH	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to J/\psi K^+$ uncertainties. NODE=S041D08;LINKAGE=A

$\Gamma(\eta_c(2S) K^+,\ \eta_c(2S) \to K^0 K^- \pi^+)/\Gamma_{total}$ Γ_{517}/Γ NODE=S041D09

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
3.27±0.17±0.34	[1] AAIJ 23AH	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to J/\psi K^+$ uncertainties. NODE=S041D09;LINKAGE=A

$\Gamma(K^0 K^+ K^+ \pi^-)/\Gamma_{total}$ Γ_{518}/Γ NODE=S041D04

VALUE (units 10^{-5})	DOCUMENT ID	TECN	COMMENT
28.01±0.68±2.89	[1] AAIJ 23AH	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to J/\psi K^+$ uncertainties. NODE=S041D04;LINKAGE=A

$\Gamma(J/\psi K^+,\ J/\psi \to K^0 K^+ \pi^-)/\Gamma_{total}$ Γ_{519}/Γ NODE=S041D10

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
5.41±0.14±1.25	[1] AAIJ 23AH	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to \eta_c K^+$ uncertainties. NODE=S041D10;LINKAGE=A

$\Gamma(\chi_{c1} K^+,\ \chi_{c1} \to K^0 K^+ \pi^-)/\Gamma_{total}$ Γ_{520}/Γ NODE=S041D11

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
2.06±0.12±0.30	[1] AAIJ 23AH	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to J/\psi K^+$ uncertainties. NODE=S041D11;LINKAGE=A

$\Gamma(\eta_c K^+,\ \eta_c \to K^0 K^+ \pi^-)/\Gamma_{total}$ Γ_{521}/Γ NODE=S041D12

VALUE (units 10^{-5})	DOCUMENT ID	TECN	COMMENT
3.00±0.14±0.31	[1] AAIJ 23AH	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to J/\psi K^+$ uncertainties. NODE=S041D12;LINKAGE=A

$\Gamma(\eta_c(2S) K^+,\ \eta_c(2S) \to K^0 K^+ \pi^-)/\Gamma_{total}$ Γ_{522}/Γ NODE=S041D13

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
3.13±0.21±0.52	[1] AAIJ 23AH	LHCB	pp at 7, 8 and 13 TeV

[1] The second uncertainty includes systematic and reference branching reaction of $B^+ \to J/\psi K^+$ uncertainties. NODE=S041D13;LINKAGE=A

$\Gamma(\phi(K\pi)_0^{*+})/\Gamma_{total}$ Γ_{523}/Γ NODE=S041T50

$(K\pi)_0^{*+}$ is the total S-wave composed of $K_0^*(1430)$ and nonresonant that are described using LASS shape. NODE=S041T50

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
8.3±1.4±0.8	[1] AUBERT 08BI	BABR	$e^+ e^- \to \Upsilon(4S)$

NODE=S041T50

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T50;LINKAGE=EP

$\Gamma(\phi K_1(1270)^+)/\Gamma_{total}$ — Γ_{524}/Γ

NODE=S041T45

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
6.1±1.6±1.1	[1] AUBERT 08BI	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T45;LINKAGE=EP

$\Gamma(\phi K_1(1400)^+)/\Gamma_{total}$ — Γ_{525}/Γ

NODE=S041R77

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
< 3.2	90	[1] AUBERT 08BI	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<1100	90	ALBRECHT 91B	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R77;LINKAGE=EP

$\Gamma(\phi K^*(1410)^+)/\Gamma_{total}$ — Γ_{526}/Γ

NODE=S041T46

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
<4.3	90	[1] AUBERT 08BI	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T46;LINKAGE=EP

$\Gamma(\phi K_0^*(1430)^+)/\Gamma_{total}$ — Γ_{527}/Γ

NODE=S041T47

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
7.0±1.3±0.9	[1] AUBERT 08BI	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T47;LINKAGE=EP

$\Gamma(\phi K_2^*(1430)^+)/\Gamma_{total}$ — Γ_{528}/Γ

NODE=S041R78

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
8.4±1.8±1.0		[1] AUBERT 08BI	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<3400	90	ALBRECHT 91B	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R78;LINKAGE=EP

$\Gamma(\phi K_2^*(1770)^+)/\Gamma_{total}$ — Γ_{529}/Γ

NODE=S041T48

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
<15.0	90	[1] AUBERT 08BI	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T48;LINKAGE=EP

$\Gamma(\phi K_2^*(1820)^+)/\Gamma_{total}$ — Γ_{530}/Γ

NODE=S041T49

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
<16.3	90	[1] AUBERT 08BI	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T49;LINKAGE=EP

$\Gamma(a_1^+ K^{*0})/\Gamma_{total}$ — Γ_{531}/Γ

NODE=S041T65

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
<3.6	90	[1,2] DEL-AMO-SA...10I	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes B$(a_1^\pm \to \pi^\pm\pi^\mp\pi^\pm) = 0.5$

NODE=S041T65;LINKAGE=DE

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

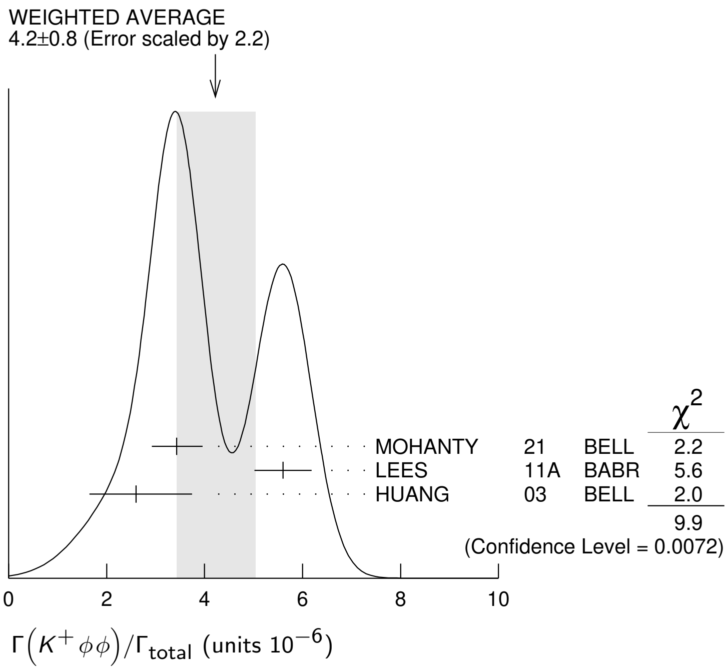
NODE=S041T65;LINKAGE=EP

$\Gamma(K^+\phi\phi)/\Gamma_{total}$ — Γ_{532}/Γ

NODE=S041C8

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
4.2 ±0.8 OUR AVERAGE	Error includes scale factor of 2.2. See the ideogram below.		
$3.43^{+0.48}_{-0.46}\pm0.22$	[1] MOHANTY 21	BELL	$e^+e^- \to \Upsilon(4S)$
5.6 ±0.5 ±0.3	[1] LEES 11A	BABR	$e^+e^- \to \Upsilon(4S)$
$2.6^{+1.1}_{-0.9}\pm0.3$	[1] HUANG 03	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
7.5 ±1.0 ±0.7	[1] AUBERT,BE 06H	BABR	Repl. by LEES 11A

[1] Assumes equal production of B^0 and B^+ at the $\Upsilon(4S)$ and the $\phi\phi$ invariant mass below 2.85 GeV/c^2. NODE=S041C8;LINKAGE=A



$\Gamma(\eta'\eta' K^+)/\Gamma_{total}$ — Γ_{533}/Γ

NODE=S041T12
NODE=S041T12

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<25	90	[1] AUBERT,B	06P	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T12;LINKAGE=EP

$\Gamma(\omega\phi K^+)/\Gamma_{total}$ — Γ_{534}/Γ

NODE=S041T54
NODE=S041T54

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<1.9	90	[1] LIU	09	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T54;LINKAGE=EP

$\Gamma(X(1812) K^+ \times B(X \rightarrow \omega\phi))/\Gamma_{total}$ — Γ_{535}/Γ

NODE=S041T55
NODE=S041T55

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.32	90	[1] LIU	09	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T55;LINKAGE=EP

$\Gamma(K^*(892)^+\gamma)/\Gamma_{total}$ — Γ_{536}/Γ

NODE=S041R9
NODE=S041R9

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
3.92±0.22 OUR AVERAGE		Error includes scale factor of 1.7.			
$3.76\pm0.10\pm0.12$		[1] HORIGUCHI	17	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
$4.22\pm0.14\pm0.16$		[2] AUBERT	09AO	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
$3.76^{+0.89}_{-0.83}\pm0.28$		[3] COAN	00	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$3.87\pm0.28\pm0.26$		[4] AUBERT,BE	04A	BABR	Repl. by AUBERT 09AO
$4.25\pm0.31\pm0.24$		[3] NAKAO	04	BELL	Repl. by HORIGUCHI 17
$3.83\pm0.62\pm0.22$		[3] AUBERT	02C	BABR	Repl. by AUBERT,BE 04A
$5.7\ \pm3.1\ \pm1.1$		[5] AMMAR	93	CLE2	Repl. by COAN 00
$<\ 55$	90	[6] ALBRECHT	89G	ARG	$e^+ e^- \rightarrow \Upsilon(4S)$
$<\ 55$	90	[6] AVERY	89B	CLEO	$e^+ e^- \rightarrow \Upsilon(4S)$
<180	90	AVERY	87	CLEO	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Uses B($\Upsilon(4S) \rightarrow B^+ B^-$) = (51.4 ± 0.6)% and B($\Upsilon(4S) \rightarrow B^0 \overline{B}^0$) = (48.6 ± 0.6)%. NODE=S041R9;LINKAGE=C

[2] Uses B($\Upsilon(4S) \rightarrow B^+ B^-$) = (51.6 ± 0.6)% and B($\Upsilon(4S) \rightarrow B^0 \overline{B}^0$) = (48.4 ± 0.6)%. NODE=S041R9;LINKAGE=AB

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R9;LINKAGE=EP

[4] Uses the production ratio of charged and neutral B from $\Upsilon(4S)$ decays $R^{+/0} = 1.006 \pm 0.048$. NODE=S041R9;LINKAGE=AU

[5] AMMAR 93 observed 4.1 ± 2.3 events above background. NODE=S041R9;LINKAGE=B

[6] Assumes the $\Upsilon(4S)$ decays 43% to $B^0 \overline{B}^0$. NODE=S041R9;LINKAGE=A1

$\Gamma(K_1(1270)^+\gamma)/\Gamma_{total}$ Γ_{537}/Γ

NODE=S041R26

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
$4.4^{+0.7}_{-0.6}$ OUR AVERAGE					
$4.41^{+0.63}_{-0.44}\pm0.58$		[1,2] DEL-AMO-SA...	16	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
$4.3 \pm0.9 \pm0.9$		[3] YANG	05	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<$ 9.9	90	[3] NISHIDA	02	BELL	Repl. by YANG 05
$<$730	90	[4] ALBRECHT	89G	ARG	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Requires $M_{K\pi\pi} < 1.8$ GeV/c^2. NODE=S041R26;LINKAGE=A

[2] Uses B($\Upsilon(4S) \rightarrow B^+B^-$) = 0.513 ± 0.006. NODE=S041R26;LINKAGE=BP

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R26;LINKAGE=EP

[4] ALBRECHT 89G reports < 0.0066 assuming the $\Upsilon(4S)$ decays 45% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R26;LINKAGE=A2

$\Gamma(\eta K^+\gamma)/\Gamma_{total}$ Γ_{538}/Γ

NODE=S041S06

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
7.9±0.9 OUR AVERAGE				
$7.7\pm1.0\pm0.4$	[1,2] AUBERT	09	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
$8.4\pm1.5^{+1.2}_{-0.9}$	[2,3] NISHIDA	05	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$10.0\pm1.3\pm0.5$	[1,2] AUBERT,B	06M	BABR	Repl. by AUBERT 09

[1] $m_{\eta K} < 3.25$ GeV/c^2. NODE=S041S06;LINKAGE=AR

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S06;LINKAGE=EP

[3] $m_{\eta K} < 2.4$ GeV/c^2 NODE=S041S06;LINKAGE=NI

$\Gamma(\eta' K^+\gamma)/\Gamma_{total}$ Γ_{539}/Γ

NODE=S041T11

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$2.9^{+1.0}_{-0.9}$ OUR AVERAGE				
$3.6\pm1.2\pm0.4$	[1,2] WEDD	10	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
$1.9^{+1.5}_{-1.2}\pm0.1$	[1,3] AUBERT,B	06M	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T11;LINKAGE=EP

[2] $m_{\eta' K} < 3.4$ GeV/c^2. NODE=S041T11;LINKAGE=WE

[3] Set the upper limit of 4.2×10^{-6} at 90% CL with $m_{\eta' K} < 3.25$ GeV/c^2. NODE=S041T11;LINKAGE=AR

$\Gamma(\phi K^+\gamma)/\Gamma_{total}$ Γ_{540}/Γ

NODE=S041RA3

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
2.7 ±0.4 OUR AVERAGE Error includes scale factor of 1.2.				
$2.48\pm0.30\pm0.24$	[1] SAHOO	11A	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
$3.5 \pm0.6 \pm0.4$	[1] AUBERT	07Q	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$3.4 \pm0.9 \pm0.4$	[1] DRUTSKOY	04	BELL	Repl. by SAHOO 11A

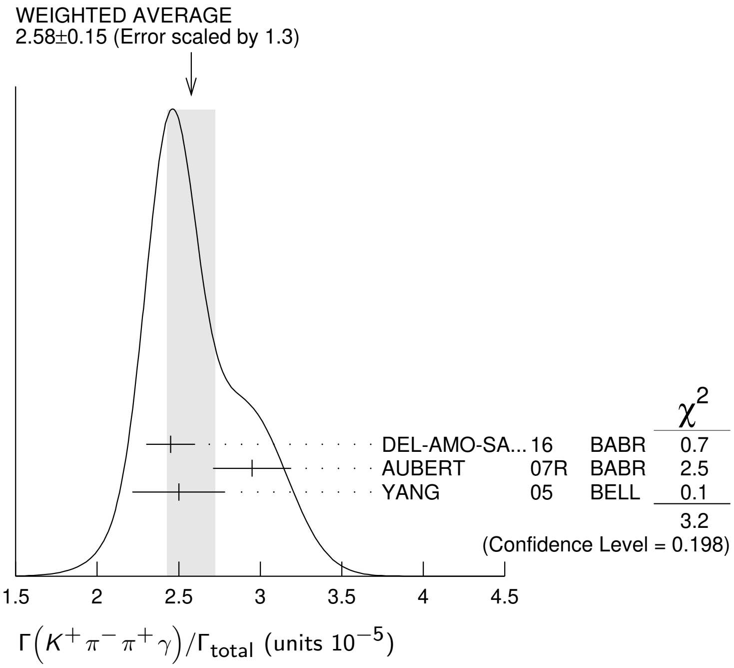
[1] Assumes equal production of B^+ and B^0 at $\Upsilon(4S)$. NODE=S041RA3;LINKAGE=EP

$\Gamma(K^+\pi^-\pi^+\gamma)/\Gamma_{total}$ Γ_{541}/Γ

NODE=S041B84

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
2.58±0.15 OUR AVERAGE Error includes scale factor of 1.3. See the ideogram below.				
$2.45\pm0.09\pm0.12$	[1,2] DEL-AMO-SA...	16	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
$2.95\pm0.13\pm0.20$	[1,3] AUBERT	07R	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
$2.50\pm0.18\pm0.22$	[3,4] YANG	05	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$2.4 \pm0.5 ^{+0.4}_{-0.2}$	[3,5] NISHIDA	02	BELL	Repl. by YANG 05

[1] $M_{K\pi\pi} < 1.8$ GeV/c^2. NODE=S041B84;LINKAGE=AT
[2] Uses B($\Upsilon(4S) \to B^+ B^-$) = 0.513 ± 0.006. NODE=S041B84;LINKAGE=BP
[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B84;LINKAGE=EP
[4] $M_{K\pi\pi} < 2.0$ GeV/c^2. NODE=S041B84;LINKAGE=YA
[5] $M_{K\pi\pi} < 2.4$ GeV/c^2. NODE=S041B84;LINKAGE=NB



$\Gamma(K^*(892)^0\pi^+\gamma)/\Gamma_{total}$ — Γ_{542}/Γ

NODE=S041B85

VALUE (units 10^{-5})	DOCUMENT ID	TECN	COMMENT
2.33±0.12 OUR AVERAGE			
$2.34\pm0.09^{+0.08}_{-0.07}$	[1,2] DEL-AMO-SA..16	BABR	$e^+e^- \to \Upsilon(4S)$
$2.0\ ^{+0.7}_{-0.6}\ \pm0.2$	[3,4] NISHIDA 02	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Requires $M_{K\pi\pi} < 1.8$ GeV/c^2. NODE=S041B85;LINKAGE=A
[2] Uses B($\Upsilon(4S) \to B^+ B^-$) = 0.513 ± 0.006. NODE=S041B85;LINKAGE=BP
[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B85;LINKAGE=EP
[4] $M_{K\pi\pi} < 2.4$ GeV/c^2. NODE=S041B85;LINKAGE=NB

$\Gamma(K^+\rho^0\gamma)/\Gamma_{total}$ — Γ_{543}/Γ

NODE=S041B86

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
8.2±0.4±0.8		[1,2] DEL-AMO-SA..16	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<20	90	[3,4] NISHIDA 02	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Requires $M_{K\pi\pi} < 1.8$ GeV/c^2. NODE=S041B86;LINKAGE=A
[2] Uses B($\Upsilon(4S) \to B^+ B^-$) = 0.513 ± 0.006. NODE=S041B86;LINKAGE=BP
[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B86;LINKAGE=EP
[4] $M_{K\pi\pi} < 2.4$ GeV/c^2. NODE=S041B86;LINKAGE=NB

$\Gamma((K^+\pi^-)_{NR}\pi^+\gamma)/\Gamma_{total}$ — Γ_{544}/Γ

NODE=S041B87

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
$\mathbf{9.9\pm0.7^{+1.5}_{-1.9}}$		[1,2] DEL-AMO-SA..16	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<9.2	90	[3,4] NISHIDA 02	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Requires $M_{K\pi\pi} < 1.8$ GeV/c^2. NODE=S041B87;LINKAGE=A
[2] Uses B($\Upsilon(4S) \to B^+ B^-$) = 0.513 ± 0.006. NODE=S041B87;LINKAGE=BP
[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B87;LINKAGE=EP
[4] $M_{K\pi\pi} < 2.4$ GeV/c^2. NODE=S041B87;LINKAGE=NB

$\Gamma(K^0\pi^+\pi^0\gamma)/\Gamma_{total}$ Γ_{545}/Γ

NODE=S041T19

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
4.56±0.42±0.31	[1,2] AUBERT	07R	BABR	$e^+e^- \to \Upsilon(4S)$

[1] $M_{K\pi\pi} < 1.8$ GeV/c^2. NODE=S041T19;LINKAGE=AT
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T19;LINKAGE=EP

$\Gamma(K_1(1400)^+\gamma)/\Gamma_{total}$ Γ_{546}/Γ

NODE=S041R27

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{9.7^{+4.6}_{-2.9}{}^{+2.9}_{-2.4}}$		[1,2] DEL-AMO-SA...	16	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
< 15	90	[3] YANG	05	BELL	$e^+e^- \to \Upsilon(4S)$
< 50	90	[3] NISHIDA	02	BELL	Repl. by YANG 05
<2200	90	[4] ALBRECHT	89G	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Requires $M_{K\pi\pi} < 1.8$ GeV/c^2. NODE=S041R27;LINKAGE=A
[2] Uses B($\Upsilon(4S) \to B^+B^-$) = 0.513 ± 0.006. NODE=S041R27;LINKAGE=BP
[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R27;LINKAGE=EP
[4] ALBRECHT 89G reports < 0.0020 assuming the $\Upsilon(4S)$ decays 45% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R27;LINKAGE=A2

$\Gamma(K^*(1410)^+\gamma)/\Gamma_{total}$ Γ_{547}/Γ

NODE=S041P24

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
$\mathbf{2.71^{+0.54}_{-0.48}{}^{+0.59}_{-0.37}}$	[1,2] DEL-AMO-SA...	16	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Requires $M_{K\pi\pi} < 1.8$ GeV/c^2. NODE=S041P24;LINKAGE=B
[2] Uses B($\Upsilon(4S) \to B^+B^-$) = 0.513 ± 0.006. NODE=S041P24;LINKAGE=BP

$\Gamma(K_0^*(1430)^0\pi^+\gamma)/\Gamma_{total}$ Γ_{548}/Γ

NODE=S041P23

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$\mathbf{1.32^{+0.09}_{-0.10}{}^{+0.24}_{-0.30}}$	[1,2] DEL-AMO-SA...	16	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Requires $M_{K\pi\pi} < 1.8$ GeV/c^2. NODE=S041P23;LINKAGE=B
[2] Uses B($\Upsilon(4S) \to B^+B^-$) = 0.513 ± 0.006. NODE=S041P23;LINKAGE=BP

$\Gamma(K_2^*(1430)^+\gamma)/\Gamma_{total}$ Γ_{549}/Γ

NODE=S041R28

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
1.4 ±0.4 OUR AVERAGE					
$0.87^{+0.70}_{-0.53}{}^{+0.87}_{-1.04}$		[1,2] DEL-AMO-SA...	16	BABR	$e^+e^- \to \Upsilon(4S)$
1.45±0.40±0.15		[3] AUBERT,B	04U	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<140	90	[4] ALBRECHT	89G	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Requires $M_{K\pi\pi} < 1.8$ GeV/c^2. NODE=S041R28;LINKAGE=A
[2] Uses B($\Upsilon(4S) \to B^+B^-$) = 0.513 ± 0.006. NODE=S041R28;LINKAGE=BP
[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R28;LINKAGE=AU
[4] ALBRECHT 89G reports < 0.0013 assuming the $\Upsilon(4S)$ decays 45% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R28;LINKAGE=A2

$\Gamma(K^*(1680)^+\gamma)/\Gamma_{total}$ Γ_{550}/Γ

NODE=S041R29

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{6.67^{+0.93}_{-0.78}{}^{+1.44}_{-1.14}}$		[1,2] DEL-AMO-SA...	16	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<190	90	[3] ALBRECHT	89G	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Requires $M_{K\pi\pi} < 1.8$ GeV/c^2. NODE=S041R29;LINKAGE=B
[2] Uses B($\Upsilon(4S) \to B^+B^-$) = 0.513 ± 0.006. NODE=S041R29;LINKAGE=BP
[3] ALBRECHT 89G reports < 0.0017 assuming the $\Upsilon(4S)$ decays 45% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R29;LINKAGE=A2

$\Gamma\big(K_3^*(1780)^+\gamma\big)/\Gamma_{\text{total}}$ Γ_{551}/Γ

NODE=S041R30
NODE=S041R30

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
< 39	90	[1,2] NISHIDA	05	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<5500	90	[3] ALBRECHT	89G	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.
NODE=S041R30;LINKAGE=EP

[2] Uses B$(K_3^*(1780) \to \eta K) = 0.11^{+0.05}_{-0.04}$.
NODE=S041R30;LINKAGE=NS

[3] ALBRECHT 89G reports < 0.005 assuming the $\Upsilon(4S)$ decays 45% to $B^0\overline{B}^0$. We rescale to 50%.
NODE=S041R30;LINKAGE=A2

$\Gamma\big(K_4^*(2045)^+\gamma\big)/\Gamma_{\text{total}}$ Γ_{552}/Γ

NODE=S041R31
NODE=S041R31

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.0099	90	[1] ALBRECHT	89G	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALBRECHT 89G reports < 0.0090 assuming the $\Upsilon(4S)$ decays 45% to $B^0\overline{B}^0$. We rescale to 50%.
NODE=S041R31;LINKAGE=A2

$\Gamma\big(\rho^+\gamma\big)/\Gamma_{\text{total}}$ Γ_{553}/Γ

NODE=S041B42
NODE=S041B42

NEW

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
1.16±0.17 OUR AVERAGE					
[$(0.98 \pm 0.25) \times 10^{-6}$ OUR 2025 AVERAGE]					
$1.31^{+0.20}_{-0.19}{}^{+0.13}_{-0.12}$		ADACHI	25G	BELL	$e^+e^- \to \Upsilon(4S)$
$1.20^{+0.42}_{-0.37}\pm0.20$		[1] AUBERT	08BH	BABR	$e^+e^- \to \Upsilon(4S)$
$0.87^{+0.29}_{-0.27}{}^{+0.09}_{-0.11}$		[1] TANIGUCHI	08	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$1.10^{+0.37}_{-0.33}\pm0.09$		[1] AUBERT	07L	BABR	Repl. by AUBERT 08BH
$0.55^{+0.42}_{-0.36}{}^{+0.09}_{-0.08}$		[1] MOHAPATRA	06	BELL	Repl. by TANIGUCHI 08
$0.9\ {}^{+0.6}_{-0.5}\ \pm0.1$	90	[1] AUBERT	05	BABR	Repl. by AUBERT 07L
< 2.2	90	[1] MOHAPATRA	05	BELL	$e^+e^- \to \Upsilon(4S)$
< 2.1	90	[1] AUBERT	04C	BABR	$e^+e^- \to \Upsilon(4S)$
<13	90	[1,2] COAN	00	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at $\Upsilon(4S)$.
NODE=S041B42;LINKAGE=EP

[2] No evidence for a nonresonant $K\pi\gamma$ contamination was seen; the central value assumes no contamination.
NODE=S041B42;LINKAGE=AP

$\Gamma\big(\pi^+\pi^0\big)/\Gamma_{\text{total}}$ Γ_{554}/Γ

NODE=S041R16
NODE=S041R16

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
5.31±0.26 OUR AVERAGE					
5.10±0.29±0.27		ADACHI	24	BELL	$e^+e^- \to \Upsilon(4S)$
5.86±0.26±0.38		[1] DUH	13	BELL	$e^+e^- \to \Upsilon(4S)$
5.02±0.46±0.29		[1] AUBERT	07BC	BABR	$e^+e^- \to \Upsilon(4S)$
$4.6\ {}^{+1.8}_{-1.6}\ {}^{+0.6}_{-0.7}$		[1] BORNHEIM	03	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
6.5 ±0.4 ±0.4		[1] LIN	07A	BELL	Repl. by DUH 13
5.8 ±0.6 ±0.4		[1] AUBERT	05L	BABR	Repl. by AUBERT 07BC
5.0 ±1.2 ±0.5		[1] CHAO	04	BELL	Repl. by LIN 07A
$5.5\ {}^{+1.0}_{-1.9}\ \pm0.6$		[1] AUBERT	03L	BABR	Repl. by AUBERT 05L
$7.4\ {}^{+2.3}_{-2.2}\ \pm0.9$		[1] CASEY	02	BELL	Repl. by CHAO 04
< 13.4	90	[1] ABE	01H	BELL	$e^+e^- \to \Upsilon(4S)$
< 9.6	90	[1] AUBERT	01E	BABR	$e^+e^- \to \Upsilon(4S)$
< 12.7	90	[1] CRONIN-HEN...	00	CLE2	$e^+e^- \to \Upsilon(4S)$
< 20	90	GODANG	98	CLE2	Repl. by CRONIN-HENNESSY 00
< 17	90	ASNER	96	CLE2	Repl. by GODANG 98
< 240	90	[1] ALBRECHT	90B	ARG	$e^+e^- \to \Upsilon(4S)$
<2300	90	[2] BEBEK	87	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.
NODE=S041R16;LINKAGE=EP

[2] BEBEK 87 assume the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$.
NODE=S041R16;LINKAGE=A

$\Gamma(\pi^+\pi^0)/\Gamma(K^0\pi^+)$ — $\Gamma_{554}/\Gamma_{411}$

NODE=S041T25

VALUE	DOCUMENT ID		TECN	COMMENT
0.285±0.02±0.02	LIN	07A	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\pi^+\pi^+\pi^-)/\Gamma(K^+K^-K^+)$ — $\Gamma_{555}/\Gamma_{503}$

NODE=S041A19

VALUE	DOCUMENT ID		TECN	COMMENT
0.488±0.005±0.009	AAIJ	20AJ	LHCB	pp at 7 and 8 TeV

$\Gamma(\pi^+\pi^+\pi^-)/\Gamma_{total}$ — Γ_{555}/Γ

NODE=S041R36

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$15.2\pm0.6^{+1.3}_{-1.2}$		[1] AUBERT	09L	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$16.2\pm1.2\pm0.9$		[1] AUBERT,B	05G	BABR	Repl. by AUBERT 09L
$10.9\pm3.3\pm1.6$		[1] AUBERT	03M	BABR	Repl. by AUBERT 05G
<130	90	[2] ADAM	96D	DLPH	$e^+e^- \to Z$
<220	90	[3] ABREU	95N	DLPH	Sup. by ADAM 96D
<450	90	[4] ALBRECHT	90B	ARG	$e^+e^- \to \Upsilon(4S)$
<190	90	[5] BORTOLETTO	89	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^0 and B^+ at the $\Upsilon(4S)$; charm and charmonium contributions are subtracted, otherwise no assumptions about intermediate resonances. NODE=S041R36;LINKAGE=TM

[2] ADAM 96D assumes $f_{B^0} = f_{B^-} = 0.39$ and $f_{B_s} = 0.12$. NODE=S041R36;LINKAGE=DQ

[3] Assumes a B^0, B^- production fraction of 0.39 and a B_s production fraction of 0.12. NODE=S041R36;LINKAGE=SR

[4] ALBRECHT 90B limit assumes equal production of $B^0\overline{B}^0$ and B^+B^- at $\Upsilon(4S)$. NODE=S041R36;LINKAGE=Q

[5] BORTOLETTO 89 reports $< 1.7 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R36;LINKAGE=A1

$\Gamma(\rho^0\pi^+)/\Gamma_{total}$ — Γ_{556}/Γ

NODE=S041R4

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
8.3±1.2 OUR AVERAGE					
$8.1\pm0.7^{+1.3}_{-1.6}$		[1] AUBERT	09L	BABR	$e^+e^- \to \Upsilon(4S)$
$8.0^{+2.3}_{-2.0}\pm0.7$		[1] GORDON	02	BELL	$e^+e^- \to \Upsilon(4S)$
$10.4^{+3.3}_{-3.4}\pm2.1$		[1] JESSOP	00	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$8.8\pm1.0^{+0.6}_{-0.9}$		[1] AUBERT,B	05G	BABR	Repl. by AUBERT 09L
$9.5\pm1.1\pm0.9$		[1] AUBERT	04Z	BABR	Repl. by AUBERT 05G
< 83	90	[2] ABE	00C	SLD	$e^+e^- \to Z$
<160	90	[3] ADAM	96D	DLPH	$e^+e^- \to Z$
< 43	90	ASNER	96	CLE2	Repl. by JESSOP 00
<260	90	[4] ABREU	95N	DLPH	Sup. by ADAM 96D
<150	90	[1] ALBRECHT	90B	ARG	$e^+e^- \to \Upsilon(4S)$
<170	90	[5] BORTOLETTO	89	CLEO	$e^+e^- \to \Upsilon(4S)$
<230	90	[5] BEBEK	87	CLEO	$e^+e^- \to \Upsilon(4S)$
<600	90	GILES	84	CLEO	Repl. by BEBEK 87

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R4;LINKAGE=EP

[2] ABE 00C assumes B($Z \to b\overline{b}$)=(21.7 ± 0.1)% and the B fractions f_{B^0}=f_{B^+}=($39.7^{+1.8}_{-2.2}$)% and f_{B_s}=($10.5^{+1.8}_{-2.2}$)%. NODE=S041R4;LINKAGE=KQ

[3] ADAM 96D assumes $f_{B^0} = f_{B^-} = 0.39$ and $f_{B_s} = 0.12$. NODE=S041R4;LINKAGE=DQ

[4] Assumes a B^0, B^- production fraction of 0.39 and a B_s production fraction of 0.12. NODE=S041R4;LINKAGE=SR

[5] Papers assume the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R4;LINKAGE=A1

$\left[\Gamma(K^*(892)^0\pi^+)+\Gamma(\rho^0\pi^+)\right]/\Gamma_{total}$ — $(\Gamma_{448}+\Gamma_{556})/\Gamma$

NODE=S041B8

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$170^{+120}_{-\ 80}\pm20$	[1] ADAM	96D	DLPH	$e^+e^- \to Z$

[1] ADAM 96D assumes $f_{B^0} = f_{B^-} = 0.39$ and $f_{B_s} = 0.12$. NODE=S041B8;LINKAGE=DQ

$\Gamma(\pi^+ f_0(980),\ f_0 \to \pi^+\pi^-)/\Gamma_{total}$ — Γ_{557}/Γ

NODE=S041R34

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
< 1.5	90	[1] AUBERT	09L	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
< 3.0	90	[1] AUBERT,B	05G	BABR	Repl. by AUBERT 09L
<140	90	[2] BORTOLETTO	89	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R34;LINKAGE=EP

[2] BORTOLETTO 89 reports $< 1.2 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R34;LINKAGE=A1

$\Gamma(\pi^+ f_2(1270))/\Gamma_{total}$ — Γ_{558}/Γ

NODE=S041R35

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$2.2^{+0.7}_{-0.4}$ OUR AVERAGE					
$17.0 \pm 2.4 \pm 2.1$		[1] AAIJ	19AL	LHCB	pp at 7, 8 TeV
$1.60^{+0.67}_{-0.44}{}^{+0.02}_{-0.05}$		[2,3] AUBERT	09L	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$4.09 \pm 1.28^{+0.05}_{-0.14}$		[3,4] AUBERT,B	05G	BABR	Repl. by AUBERT 09L
<240	90	[5] BORTOLETTO	89	CLEO	$e^+e^- \to \Upsilon(4S)$

OCCUR=2

[1] AAIJ 19AL reports $0.075 \pm 0.008 \pm 0.007$ fit fraction for $B^+ \to f_2(1270)\pi^+$ from the amplitude analysis of $B^\pm \to \pi^\pm K^+K^-$ decays. We use the PDG 19 value $B(B^+ \to K^+K^-\pi^+) = (5.2 \pm 0.4) \times 10^{-6}$ to obtain $B(B^+ \to f_2(1270)\pi^+$, $f_2(1270) \to K^+K^-)$. We compute $B(B^+ \to f_2(1270)\pi^+)$ using 1/2 of PDG 19 value of $B(f_2(1270) \to K\overline{K}) = (4.6^{+0.5}_{-0.4})$% for K^+K^- fraction. Our first error is the experiment's error and the second error is systematic error from using our best value. NODE=S041R35;LINKAGE=B

[2] AUBERT 09L reports $[\Gamma(B^+ \to \pi^+ f_2(1270))/\Gamma_{total}] \times [B(f_2(1270) \to \pi^+\pi^-)] = (0.9 \pm 0.2 \pm 0.1^{+0.3}_{-0.1}) \times 10^{-6}$ which we divide by our best value $B(f_2(1270) \to \pi^+\pi^-) = (56.2^{+1.9}_{-0.6}) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R35;LINKAGE=AB

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R35;LINKAGE=EP

[4] AUBERT,B 05G reports $[\Gamma(B^+ \to \pi^+ f_2(1270))/\Gamma_{total}] \times [B(f_2(1270) \to \pi^+\pi^-)] = (2.3 \pm 0.6 \pm 0.4) \times 10^{-6}$ which we divide by our best value $B(f_2(1270) \to \pi^+\pi^-) = (56.2^{+1.9}_{-0.6}) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R35;LINKAGE=AU

[5] BORTOLETTO 89 reports $< 2.1 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R35;LINKAGE=A1

$\Gamma(\rho(1450)^0\pi^+,\ \rho^0 \to \pi^+\pi^-)/\Gamma_{total}$ — Γ_{559}/Γ

NODE=S041S01

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$1.4 \pm 0.4^{+0.5}_{-0.8}$		[1] AUBERT	09L	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.3	90	[1] AUBERT,B	05G	BABR	Repl. by AUBERT 09L

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S01;LINKAGE=EP

$\Gamma(f_0(1370)\pi^+,\ f_0 \to \pi^+\pi^-)/\Gamma_{total}$ — Γ_{561}/Γ

NODE=S041S02

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<4.0	90	[1] AUBERT	09L	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<3.0	90	[1] AUBERT,B	05G	BABR	Repl. by AUBERT 09L

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S02;LINKAGE=EP

$\Gamma(f_0(1370)\pi^+,\ f_0 \to \pi^0\pi^0)/\Gamma_{total}$ — Γ_{562}/Γ

NODE=S041A74

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.1 \times 10^{-6}$	90	LAI	23	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(f_0(500)\pi^+,\ f_0 \to \pi^+\pi^-)/\Gamma_{total}$ — Γ_{563}/Γ

NODE=S041S03

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<4.1	90	[1] AUBERT,B	05G	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S03;LINKAGE=EP

$\Gamma(\pi^+\pi^-\pi^+ \text{nonresonant})/\Gamma_{total}$ — Γ_{564}/Γ

NODE=S041B2

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$5.3\pm0.7^{+1.3}_{-0.8}$		[1] AUBERT	09L	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<4.6	90	[1] AUBERT,B	05G	BABR	Repl. by AUBERT 09L
<41	90	BERGFELD	96B	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B2;LINKAGE=EP

$\Gamma(\pi^+\pi^0\pi^0)/\Gamma_{total}$ — Γ_{565}/Γ

NODE=S041R40

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
$1.90\pm0.15\pm0.14$		LAI	23	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<89	90	[1] ALBRECHT	90B	ARG	$e^+e^- \rightarrow \Upsilon(4S)$

[1] ALBRECHT 90B limit assumes equal production of $B^0\overline{B}^0$ and B^+B^- at $\Upsilon(4S)$.

NODE=S041R40;LINKAGE=Q

$\Gamma(\rho^+\pi^0)/\Gamma_{total}$ — Γ_{566}/Γ

NODE=S041R41

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
$1.06^{+0.12}_{-0.13}$ OUR AVERAGE					
$1.12\pm0.11^{+0.12}_{-0.18}$		[1] LAI	23	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
$1.02\pm0.14\pm0.09$		[2] AUBERT	07X	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$1.32\pm0.23^{+0.14}_{-0.19}$		[2] ZHANG	05A	BELL	Repl. by LAI 23
$1.09\pm0.19\pm0.19$		[2] AUBERT	04Z	BABR	Repl. by AUBERT 07X
<4.3	90	[2,3] JESSOP	00	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$
<7.7	90	ASNER	96	CLE2	Repl. by JESSOP 00
<55	90	[2] ALBRECHT	90B	ARG	$e^+e^- \rightarrow \Upsilon(4S)$

[1] The second uncertainty includes both systematics $((\pm0.09)\times10^{-5})$ and possible interference with $B^+ \rightarrow \rho(1450)^+\pi^0$ $((^{+0.08}_{-0.16})\times10^{-5})$.

NODE=S041R41;LINKAGE=A

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R41;LINKAGE=EP

[3] Assumes no nonresonant contributions of $B^+ \rightarrow \pi^+\pi^0\pi^0$.

NODE=S041R41;LINKAGE=JE

$\Gamma(\rho(1450)^+\pi^0,\ \rho^+ \rightarrow \pi^+\pi^0)/\Gamma_{total}$ — Γ_{567}/Γ

NODE=S041A73

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$1.2\pm0.6\pm0.2$	LAI	23	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

$\Gamma(\pi^+\pi^0\pi^0 \text{nonresonant})/\Gamma_{total}$ — Γ_{568}/Γ

NODE=S041A83

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<6\times10^{-7}$	90	LAI	23	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

$\Gamma(X pi+, X \rightarrow \pi^0\pi^0)/\Gamma_{total}$ — Γ_{569}/Γ

NODE=S041A84

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$6.9\pm0.9\pm0.6$	LAI	23	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

$\Gamma(\pi^+\pi^-\pi^+\pi^0)/\Gamma_{total}$ — Γ_{570}/Γ

NODE=S041R42

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<4.0\times10^{-3}$	90	[1] ALBRECHT	90B	ARG	$e^+e^- \rightarrow \Upsilon(4S)$

[1] ALBRECHT 90B limit assumes equal production of $B^0\overline{B}^0$ and B^+B^- at $\Upsilon(4S)$.

NODE=S041R42;LINKAGE=Q

$\Gamma(\rho^+\rho^0)/\Gamma_{total}$ — Γ_{571}/Γ

NODE=S041R43

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
24.0 ± 1.9 OUR AVERAGE					
$23.7\pm1.4\pm1.4$		[1] AUBERT	09G	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
$31.7\pm7.1^{+3.8}_{-6.7}$		[1,2] ZHANG	03B	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$16.8\pm2.2\pm2.3$		[1] AUBERT,BE	06G	BABR	Repl. by AUBERT 09G
$22.5^{+5.7}_{-5.4}\pm5.8$		[1] AUBERT	03V	BABR	Repl. by AUBERT,BE 06G
<1000	90	[1] ALBRECHT	90B	ARG	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R43;LINKAGE=EP

[2] The systematic error includes the error associated with the helicity-mix uncertainty.

NODE=S041R43;LINKAGE=ZP

$\Gamma(\rho^+ f_0(980),\ f_0 \to \pi^+\pi^-)/\Gamma_{total}$ Γ_{572}/Γ

NODE=S041T18

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<2.0	90	[1] AUBERT	09G	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1.9	90	[1] AUBERT,BE	06G	BABR	Repl. by AUBERT 09G

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T18;LINKAGE=EP

$\Gamma(a_1(1260)^+\pi^0)/\Gamma_{total}$ Γ_{573}/Γ

NODE=S041R44

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
26.4±5.4±4.1		[1,2] AUBERT	07BL	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1700	90	[1] ALBRECHT	90B	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R44;LINKAGE=EP

[2] Assumes a_1^+ decays only to 3π and B($a_1^+ \to \pi^\pm\pi^\mp\pi^+$) = 0.5.

NODE=S041R44;LINKAGE=UB

$\Gamma(a_1(1260)^0\pi^+)/\Gamma_{total}$ Γ_{574}/Γ

NODE=S041R45

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
20.4±4.7±3.4		[1,2] AUBERT	07BL	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<900	90	[1] ALBRECHT	90B	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R45;LINKAGE=EP

[2] Assumes a_1^0 decays only to 3π and B($a_1^+ \to \pi^\pm\pi^\mp\pi^0$) = 1.0.

NODE=S041R45;LINKAGE=UB

$\Gamma(\omega\pi^+)/\Gamma_{total}$ Γ_{575}/Γ

NODE=S041R46

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
6.9±0.5 OUR AVERAGE					
6.7±0.5±0.4		[1] AUBERT	07AE	BABR	$e^+e^- \to \Upsilon(4S)$
6.9±0.6±0.5		[1] JEN	06	BELL	$e^+e^- \to \Upsilon(4S)$
$11.3^{+3.3}_{-2.9}\pm1.4$		[1] JESSOP	00	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
6.1±0.7±0.4		[1] AUBERT,B	06E	BABR	Repl. by AUBERT 07AE
5.5±0.9±0.5		[1] AUBERT	04H	BABR	Repl. by AUBERT,B 06E
$5.7^{+1.4}_{-1.3}\pm0.6$		[1] WANG	04A	BELL	Repl. by JEN 06
$4.2^{+2.0}_{-1.8}\pm0.5$		[1] LU	02	BELL	Repl. by WANG 04A
$6.6^{+2.1}_{-1.8}\pm0.7$		[1] AUBERT	01G	BABR	Repl. by AUBERT 04H
< 23	90	[1] BERGFELD	98	CLE2	Repl. by JESSOP 00
<400	90	[1] ALBRECHT	90B	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R46;LINKAGE=EP

$\Gamma(\omega\rho^+)/\Gamma_{total}$ Γ_{576}/Γ

NODE=S041B27

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
15.9±1.6±1.4		[1] AUBERT	09H	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$10.6\pm2.1^{+1.6}_{-1.0}$		[1] AUBERT,B	06T	BABR	Repl. by AUBERT 09H
$12.6^{+3.7}_{-3.3}\pm1.6$		[1] AUBERT	05O	BABR	Repl. by AUBERT,B 06T
<61	90	[1] BERGFELD	98	CLE2	

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B27;LINKAGE=EP

$\Gamma(\eta\pi^+)/\Gamma_{total}$ Γ_{577}/Γ

NODE=S041R47

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
4.02±0.27 OUR AVERAGE					
4.07±0.26±0.21		[1] HOI	12	BELL	$e^+e^- \to \Upsilon(4S)$
4.00±0.40±0.24		[1] AUBERT	09AV	BABR	$e^+e^- \to \Upsilon(4S)$
$1.2\ ^{+2.8}_{-1.2}$		[1] RICHICHI	00	CLE2	$e^+e^- \to \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

5.0 $\pm$0.5 $\pm$0.3		[1] AUBERT	07AE BABR	Repl. by AUBERT 09AV
4.2 $\pm$0.4 $\pm$0.2		[1] CHANG	07B BELL	Repl. by HOI 12
5.1 $\pm$0.6 $\pm$0.3		[1] AUBERT,B	05K BABR	Repl. by AUBERT 07AE
4.8 $\pm$0.7 $\pm$0.3		[1] CHANG	05A BELL	Repl. by CHANG 07B
5.3 $\pm$1.0 $\pm$0.3		[1] AUBERT	04H BABR	Repl. by AUBERT,B 05K
$<$ 15	90	BEHRENS	98 CLE2	Repl. by RICHICHI 00
$<$700	90	[1] ALBRECHT	90B ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R47;LINKAGE=EP

$\Gamma(\eta\rho^+)/\Gamma_{\text{total}}$ Γ_{578}/Γ

NODE=S041B23
NODE=S041B23

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
7.0$\pm$2.9 OUR AVERAGE	Error includes scale factor of 2.8.			
9.9$\pm$1.2$\pm$0.8		[1] AUBERT	08AH BABR	$e^+e^- \to \Upsilon(4S)$
$4.1^{+1.4}_{-1.3}\pm0.4$		[1] WANG	07B BELL	$e^+e^- \to \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

8.4$\pm$1.9$\pm$1.1		[1] AUBERT,B	05K BABR	Repl. by AUBERT 08AH
$<$14	90	[1] AUBERT,B	04D BABR	Repl. by AUBERT,B 05K
$<$15	90	[1] RICHICHI	00 CLE2	$e^+e^- \to \Upsilon(4S)$
$<$32	90	BEHRENS	98 CLE2	Repl. by RICHICHI 00

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B23;LINKAGE=EP

$\Gamma(\eta'\pi^+)/\Gamma_{\text{total}}$ Γ_{579}/Γ

NODE=S041B18
NODE=S041B18

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
2.7 $\pm$0.9 OUR AVERAGE	Error includes scale factor of 1.9.			
3.5 $\pm$0.6 $\pm$0.2		[1] AUBERT	09AV BABR	$e^+e^- \to \Upsilon(4S)$
$1.76^{+0.67}_{-0.62}{}^{+0.15}_{-0.14}$		[1] SCHUEMANN	06 BELL	$e^+e^- \to \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

3.9 $\pm$0.7 $\pm$0.3		[1] AUBERT	07AE BABR	Repl. by AUBERT 09AV
4.0 $\pm$0.8 $\pm$0.4		[1] AUBERT,B	05K BABR	Repl. by AUBERT 07AE
$<$ 4.5	90	[1] AUBERT	04H BABR	Repl. by AUBERT,B 05K
$<$ 7.0	90	[1] ABE	01M BELL	$e^+e^- \to \Upsilon(4S)$
$<$12	90	[1] AUBERT	01G BABR	$e^+e^- \to \Upsilon(4S)$
$<$12	90	[1] RICHICHI	00 CLE2	$e^+e^- \to \Upsilon(4S)$
$<$31	90	BEHRENS	98 CLE2	Repl. by RICHICHI 00

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B18;LINKAGE=EP

$\Gamma(\eta'\rho^+)/\Gamma_{\text{total}}$ Γ_{580}/Γ

NODE=S041B19
NODE=S041B19

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
$\mathbf{9.7^{+1.9}_{-1.8}\pm1.1}$		[1] DEL-AMO-SA..10A	BABR	$e^+e^- \to \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

$8.7^{+3.1}_{-2.8}{}^{+2.3}_{-1.3}$		[1] AUBERT	07E BABR	Repl. by DEL-AMO-SANCHEZ 10A
$<$ 5.8	90	[1] SCHUEMANN	07 BELL	$e^+e^- \to \Upsilon(4S)$
$<$22	90	[1] AUBERT,B	04D BABR	Repl. by AUBERT 07E
$<$33	90	[1] RICHICHI	00 CLE2	$e^+e^- \to \Upsilon(4S)$
$<$47	90	BEHRENS	98 CLE2	Repl. by RICHICHI 00

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B19;LINKAGE=EP

$\Gamma(\phi\pi^+)/\Gamma_{\text{total}}$ Γ_{581}/Γ

NODE=S041B28
NODE=S041B28

VALUE (units 10^{-8})	CL%	DOCUMENT ID	TECN	COMMENT
3.2$\pm$1.5$\pm$0.3		[1] AAIJ	19AL LHCB	pp at 7, 8 TeV

• • • We do not use the following data for averages, fits, limits, etc. • • •

$<$ 15	90	[2] AAIJ	14A LHCB	Repl. by AAIJ 19AL
$<$ 33	90	[3] KIM	12A BELL	$e^+e^- \to \Upsilon(4S)$
$<$ 24	90	[3] AUBERT,B	06C BABR	$e^+e^- \to \Upsilon(4S)$
$<$ 41	90	[3] AUBERT	04A BABR	Repl. by AUBERT,B 06C
$<$ 140	90	[3] AUBERT	01D BABR	$e^+e^- \to \Upsilon(4S)$
$<$15300	90	[4] ABE	00C SLD	$e^+e^- \to Z$
$<$ 500	90	[3] BERGFELD	98 CLE2	

[1] AAIJ 19AL reports $(0.3 \pm 0.1 \pm 0.1) \times 10^{-2}$ fit fraction for $B^+ \to \phi(1020)\pi^+$ from the amplitude analysis of $B^\pm \to \pi^\pm K^+ K^-$ decays. We use the PDG 19 value $B(B^+ \to K^+ K^- \pi^+) = (5.2 \pm 0.4) \times 10^{-6}$ to obtain $B(B^+ \to \phi(1020)\pi^+, \phi(1020) \to K^+ K^-)$. We compute $B(B^+ \to \phi(1020)\pi^+)$ using the PDG 19 value of $B(\phi(1020) \to K^+ K^-) = (49.2 \pm 0.5)\%$. Our first error is the experiment's error and the second error is systematic error from using our best value. NODE=S041B28;LINKAGE=B

[2] Measures $B(B^+ \to \phi\pi^+)/B(B^+ \to \phi K^+) < 0.018$ at 90% C.L. and assumes $B(B^+ \to \phi K^+) = (8.8^{+0.7}_{-0.6}) \times 10^{-6}$. NODE=S041B28;LINKAGE=A

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B28;LINKAGE=EP

[4] ABE 00C assumes $B(Z \to b\overline{b})$=(21.7 ± 0.1)% and the B fractions $f_{B^0}=f_{B^+}=(39.7^{+1.8}_{-2.2})\%$ and $f_{B_s}=(10.5^{+1.8}_{-2.2})\%$. NODE=S041B28;LINKAGE=KQ

$\Gamma(\phi\rho^+)/\Gamma_{total}$ — Γ_{582}/Γ

NODE=S041B29

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
< 3.0	90	[1] AUBERT	08BK	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<16		[1] BERGFELD	98	CLE2	

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B29;LINKAGE=EP

$\Gamma(a_0(980)^0\pi^+,\ a_0^0 \to \eta\pi^0)/\Gamma_{total}$ — Γ_{583}/Γ

NODE=S041RA4

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<5.8	90	[1] AUBERT,BE	04	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of charged and neutral B mesons from $\Upsilon(4S)$ decays. NODE=S041RA4;LINKAGE=EP

$\Gamma(a_0(980)^+\pi^0,\ a_0^+ \to \eta\pi^+)/\Gamma_{total}$ — Γ_{584}/Γ

NODE=S041T24

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<1.4	90	[1] AUBERT	08A	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T24;LINKAGE=EP

$\Gamma(\pi^+\pi^+\pi^+\pi^-\pi^-)/\Gamma_{total}$ — Γ_{585}/Γ

NODE=S041R48

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<8.6 × 10⁻⁴	90	[1] ALBRECHT	90B	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALBRECHT 90B limit assumes equal production of $B^0\overline{B}^0$ and B^+B^- at $\Upsilon(4S)$. NODE=S041R48;LINKAGE=Q

$\Gamma(\rho^0 a_1(1260)^+)/\Gamma_{total}$ — Γ_{586}/Γ

NODE=S041R17

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<6.2 \times 10^{-4}$	90	[1] BORTOLETTO	89	CLEO	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<6.0 \times 10^{-4}$	90	[2] ALBRECHT	90B	ARG	$e^+e^- \to \Upsilon(4S)$
$<3.2 \times 10^{-3}$	90	[1] BEBEK	87	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] BORTOLETTO 89 reports $< 5.4 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R17;LINKAGE=A1

[2] ALBRECHT 90B limit assumes equal production of $B^0\overline{B}^0$ and B^+B^- at $\Upsilon(4S)$. NODE=S041R17;LINKAGE=Q

$\Gamma(\rho^0 a_2(1320)^+)/\Gamma_{total}$ — Γ_{587}/Γ

NODE=S041R18

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<7.2 \times 10^{-4}$	90	[1] BORTOLETTO	89	CLEO	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<2.6 \times 10^{-3}$	90	[2] BEBEK	87	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] BORTOLETTO 89 reports $< 6.3 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R18;LINKAGE=A1

[2] BEBEK 87reports $< 2.3 \times 10^{-3}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R18;LINKAGE=B

$\Gamma(b_1^0\pi^+,\ b_1^0 \to \omega\pi^0)/\Gamma_{total}$ — Γ_{588}/Γ

NODE=S041T27

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
6.7±1.7±1.0	[1] AUBERT	07BI	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T27;LINKAGE=EP

$\Gamma(b_1^+\pi^0,\ b_1^+ \to \omega\pi^+)/\Gamma_{total}$ — Γ_{589}/Γ

NODE=S041T35

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<3.3	90	[1] AUBERT	08AG	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T35;LINKAGE=EP

$\Gamma(\pi^+\pi^+\pi^+\pi^-\pi^-\pi^0)/\Gamma_{total}$ — Γ_{590}/Γ

NODE=S041R50

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<6.3 \times 10^{-3}$	90	[1] ALBRECHT	90B	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALBRECHT 90B limit assumes equal production of $B^0\overline{B}^0$ and B^+B^- at $\Upsilon(4S)$.

NODE=S041R50;LINKAGE=Q

$\Gamma(b_1^+\rho^0,\ b_1^+ \to \omega\pi^+)/\Gamma_{total}$ — Γ_{591}/Γ

NODE=S041T58

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<5.2 \times 10^{-6}$	90	[1] AUBERT	09AF	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T58;LINKAGE=EP

$\Gamma(b_1^0\rho^+,\ b_1^0 \to \omega\pi^0)/\Gamma_{total}$ — Γ_{593}/Γ

NODE=S041T59

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<3.3 \times 10^{-6}$	90	[1] AUBERT	09AF	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T59;LINKAGE=EP

$\Gamma(a_1(1260)^+ a_1(1260)^0)/\Gamma_{total}$ — Γ_{592}/Γ

NODE=S041R51

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.3 \times 10^{-2}$	90	[1] ALBRECHT	90B	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALBRECHT 90B limit assumes equal production of $B^0\overline{B}^0$ and B^+B^- at $\Upsilon(4S)$.

NODE=S041R51;LINKAGE=Q

$\Gamma(h^+\pi^0)/\Gamma_{total}$ — Γ_{594}/Γ

NODE=S041B17

$h^+ = K^+$ or π^+

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$16^{+6}_{-5} \pm 3.6$	GODANG	98	CLE2	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\omega h^+)/\Gamma_{total}$ — Γ_{595}/Γ

NODE=S041B30

$h^+ = K^+$ or π^+

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$13.8^{+2.7}_{-2.4}$ **OUR AVERAGE**				
$13.4^{+3.3}_{-2.9} \pm 1.1$	[1] LU	02	BELL	$e^+e^- \to \Upsilon(4S)$
$14.3^{+3.6}_{-3.2} \pm 2.0$	[1] JESSOP	00	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$25\ ^{+8}_{-7} \pm 3$	[1] BERGFELD	98	CLE2	Repl. by JESSOP 00

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B30;LINKAGE=EP

$\Gamma(h^+X^0(\text{Familon}))/\Gamma_{total}$ — Γ_{596}/Γ

NODE=S041B56

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<49	90	[1] AMMAR	01B	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] AMMAR 01B searched for the two-body decay of the B meson to a massless neutral feebly-interacting particle X^0 such as the familon, the Nambu-Goldstone boson associated with a spontaneously broken global family symmetry.

NODE=S041B56;LINKAGE=A

$\Gamma(K^+X^0,\ X^0 \to \mu^+\mu^-)/\Gamma_{total}$ — Γ_{597}/Γ

NODE=S041P46

X^0 stands here for a long-lived scalar particle.

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1 \times 10^{-7}$	95	[1] AAIJ	17AQ	LHCB	pp at 7, 8 TeV

[1] AAIJ 17AQ searched for a long-lived scalar particle $X^0 \to \mu^+\mu^-$ in the mass range 250–4700 MeV and lifetime range 0.1–1000 ps. The limit is between 10^{-7} and 2×10^{-10} in these ranges except in vetoed mass regions around K^0_S, J/ψ, $\psi(2S)$, and $\psi(3770)$.

NODE=S041P46;LINKAGE=A

$\Gamma(p\overline{p}\pi^+)/\Gamma_{total}$ — Γ_{598}/Γ

NODE=S041R21

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
1.62 ± 0.20 **OUR AVERAGE**					
$1.60^{+0.22}_{-0.19} \pm 0.12$		[1,2,3] WEI	08	BELL	$e^+e^- \to \Upsilon(4S)$
$1.69 \pm 0.29 \pm 0.26$		[1] AUBERT	07AV	BABR	$e^+e^- \to \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

$1.07\pm 0.11\pm 0.11$		[4] AAIJ	14AF	LHCB	pp at 7, 8 TeV
$3.06^{+0.73}_{-0.62}\pm 0.37$		[1,3] WANG	04	BELL	Repl. by WEI 08
<3.7	90	[1,2] ABE	02K	BELL	Repl. by WANG 04
<500	90	[5] ABREU	95N	DLPH	Repl. by ADAM 96D
<160	90	[6] BEBEK	89	CLEO	$e^+e^- \to \Upsilon(4S)$
$570 \pm 150 \pm 210$		[7] ALBRECHT	88F	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.
[2] Explicitly vetoes resonant production of $p\overline{p}$ from Charmonium states.
[3] Also provides results with $m_{p\overline{p}} < 2.85$ GeV/c^2 and angular asymmetry of $p\overline{p}$ system.
[4] Requires $m_{p\overline{p}} < 2.85$ GeV/c^2.
[5] Assumes a B^0, B^- production fraction of 0.39 and a B_s production fraction of 0.12.
[6] BEBEK 89 reports $< 1.4\times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%.
[7] ALBRECHT 88F reports $(5.2 \pm 1.4 \pm 1.9)\times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 45% to $B^0\overline{B}^0$. We rescale to 50%.

NODE=S041R21;LINKAGE=EP
NODE=S041R21;LINKAGE=EZ
NODE=S041R21;LINKAGE=WN
NODE=S041R21;LINKAGE=AA
NODE=S041R21;LINKAGE=SR
NODE=S041R21;LINKAGE=A1
NODE=S041R21;LINKAGE=B

$\Gamma(p\overline{p}\pi^+ \text{nonresonant})/\Gamma_{\text{total}}$ — Γ_{599}/Γ

NODE=S041B6
NODE=S041B6

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<53	90	BERGFELD	96B	CLE2	$e^+e^- \to \Upsilon(4S)$

$\Gamma(p\overline{p}\pi^+\pi^0)/\Gamma_{\text{total}}$ — Γ_{600}/Γ

NODE=S041P84
NODE=S041P84

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
4.58±1.17±0.67	[1] CHU	20	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^0 and B^+ from $\Upsilon(4S)$ decays. This measurement is quoted for M$(\pi^+\pi^0) < 1.3$ GeV.

NODE=S041P84;LINKAGE=A

$\Gamma(p\overline{p}\pi^+\pi^+\pi^-)/\Gamma_{\text{total}}$ — Γ_{601}/Γ

NODE=S041R22
NODE=S041R22

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<5.2\times 10^{-4}$	90	[1] ALBRECHT	88F	ARG	$e^+e^- \to \Upsilon(4S)$

[1] ALBRECHT 88F reports $< 4.7\times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 45% to $B^0\overline{B}^0$. We rescale to 50%.

NODE=S041R22;LINKAGE=B

$\Gamma(p\overline{p}K^+)/\Gamma_{\text{total}}$ — Γ_{602}/Γ

NODE=S041B90
NODE=S041B90

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
5.9 ±0.5 OUR AVERAGE Error includes scale factor of 1.5.				
$5.54^{+0.27}_{-0.25}\pm 0.36$	[1,2,3] WEI	08	BELL	$e^+e^- \to \Upsilon(4S)$
$6.7 \pm 0.5 \pm 0.4$	[1,3] AUBERT,B	05L	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$4.59^{+0.38}_{-0.34}\pm 0.50$	[1,2,3] WANG	05A	BELL	Repl. by WEI 08
$5.66^{+0.67}_{-0.57}\pm 0.62$	[1,2,3] WANG	04	BELL	Repl. by WANG 05A
$4.3 ^{+1.1}_{-0.9} \pm 0.5$	[1,2] ABE	02K	BELL	Repl. by WANG 04

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.
[2] Explicitly vetoes resonant production of $p\overline{p}$ from Charmonium states.
[3] Provides also results with $m_{p\overline{p}} < 2.85$ GeV/c^2 and angular asymmetry of $p\overline{p}$ system.

NODE=S041B90;LINKAGE=EP
NODE=S041B90;LINKAGE=EZ
NODE=S041B90;LINKAGE=WN

$\Gamma(p\overline{p}K^+)/\Gamma(J/\psi(1S)K^+)$ — $\Gamma_{602}/\Gamma_{316}$

NODE=S041BA1
NODE=S041BA1

VALUE	DOCUMENT ID		TECN	COMMENT
0.0104±0.0005±0.0001	[1,2] AAIJ	13S	LHCB	pp at 7 TeV

[1] AAIJ 13S reports $[\Gamma(B^+ \to p\overline{p}K^+)/\Gamma(B^+ \to J/\psi(1S)K^+)]$ / $[B(J/\psi(1S) \to p\overline{p})] = 4.91 \pm 0.19 \pm 0.14$ which we multiply by our best value $B(J/\psi(1S) \to p\overline{p}) = (2.121 \pm 0.029)\times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.
[2] Measurement includes contribution where $p\overline{p}$ is produced in charmonia decays.

NODE=S041BA1;LINKAGE=AA
NODE=S041BA1;LINKAGE=AB

$\Gamma(\Theta(1710)^{++}\overline{p},\ \Theta^{++} \to pK^+)/\Gamma_{total}$ — Γ_{603}/Γ

NODE=S041Q50

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.091	90	[1] WANG	05A	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.1	90	[1,2] AUBERT,B	05L	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q50;LINKAGE=EP

[2] Provides upper limits depending on the pentaquark masses between 1.43 to 2.0 GeV/c^2. NODE=S041Q50;LINKAGE=AU

$\Gamma(f_J(2220)K^+,\ f_J \to p\overline{p})/\Gamma_{total}$ — Γ_{604}/Γ

NODE=S041Q51

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.41	90	[1] WANG	05A	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q51;LINKAGE=EP

$\Gamma(p\overline{n}\pi^0)/\Gamma_{total}$ — Γ_{605}/Γ

NODE=S041D20

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<6.3 × 10^{-6}	90	CHU	23	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(p\overline{\Lambda}(1520))/\Gamma_{total}$ — Γ_{606}/Γ

NODE=S041Q46

VALUE (units 10^{-7})	CL%	DOCUMENT ID		TECN	COMMENT
3.15±0.48±0.27		[1] AAIJ	14AF	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$3.9\ ^{+1.0}_{-0.9}\ \pm0.3$		[1] AAIJ	13AU	LHCB	Repl. by AAIJ 14AF
<15	90	[2] AUBERT,B	05L	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Uses B($B^+ \to J/\psi K^+$) = $(1.016 \pm 0.033) \times 10^{-3}$, B($J/\psi \to p\overline{p}$) = $(2.17 \pm 0.07) \times 10^{-3}$ and B($\Lambda(1520) \to K^- p$) = 0.234 ± 0.016. NODE=S041Q46;LINKAGE=AA

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q46;LINKAGE=EP

$\Gamma(p\overline{p}K^+ \text{ nonresonant})/\Gamma_{total}$ — Γ_{607}/Γ

NODE=S041B7

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<89	90	BERGFELD	96B	CLE2	$e^+e^- \to \Upsilon(4S)$

$\Gamma(p\overline{p}K^*(892)^+)/\Gamma_{total}$ — Γ_{608}/Γ

NODE=S041Q07

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$3.6\ ^{+0.8}_{-0.7}$ OUR AVERAGE				
$3.38^{+0.73}_{-0.60}\pm0.39$	[1,2] CHEN	08C	BELL	$e^+e^- \to \Upsilon(4S)$
5.3 ±1.5 ±1.3	[2] AUBERT	07AV	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$10.3\ ^{+3.6}_{-2.8}\ ^{+1.3}_{-1.7}$	[2,3] WANG	04	BELL	Repl. by CHEN 08C

[1] Explicitly vetoes resonant production of $p\overline{p}$ from charmonium states. NODE=S041Q07;LINKAGE=CH

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q07;LINKAGE=EP

[3] Explicitly vetoes resonant production of $p\overline{p}$ from charmonium states. The branching fraction for $M_{p\overline{p}} < 2.85$ GeV/c^2 is also reported. NODE=S041Q07;LINKAGE=WN

$\Gamma(f_J(2220)K^{*+},\ f_J \to p\overline{p})/\Gamma_{total}$ — Γ_{609}/Γ

NODE=S041Q97

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.77	90	[1] AUBERT	07AV	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q97;LINKAGE=EP

$\Gamma(p\overline{\Lambda})/\Gamma_{total}$ — Γ_{610}/Γ

NODE=S041R23

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$0.24^{+0.10}_{-0.08}\pm0.03$		[1] AAIJ	17R	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
< 0.32	90	[2] TSAI	07	BELL	$e^+e^- \to \Upsilon(4S)$
< 0.49	90	[2] CHANG	05	BELL	Repl. by TSAI 07
< 1.5	90	[2] BORNHEIM	03	CLE2	$e^+e^- \to \Upsilon(4S)$
< 2.2	90	[2] ABE	02O	BELL	$e^+e^- \to \Upsilon(4S)$
< 2.6	90	[2] COAN	99	CLE2	$e^+e^- \to \Upsilon(4S)$
<60	90	[3] AVERY	89B	CLEO	$e^+e^- \to \Upsilon(4S)$
<93	90	[4] ALBRECHT	88F	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Statistical significance of the signal is 4.1 standard deviations where the the normalisation is based on B($B^+ \to K^0_S \pi^+$) = (11.895 ± 0.375) × 10^{-06}. NODE=S041R23;LINKAGE=A
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R23;LINKAGE=EP
[3] AVERY 89B reports $< 5 \times 10^{-5}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0 \overline{B}^0$. We rescale to 50%. NODE=S041R23;LINKAGE=A1
[4] ALBRECHT 88F reports $< 8.5 \times 10^{-5}$ assuming the $\Upsilon(4S)$ decays 45% to $B^0 \overline{B}^0$. We rescale to 50%. NODE=S041R23;LINKAGE=B

$\Gamma(p\overline{\Lambda}\gamma)/\Gamma_{total}$ Γ_{611}/Γ

NODE=S041B99
NODE=S041B99

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$2.45^{+0.44}_{-0.38} \pm 0.22$		[1] WANG	07C	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$2.16^{+0.58}_{-0.53} \pm 0.20$		[1] LEE	05	BELL	Repl. by WANG 07C
<3.9	90	[2] EDWARDS	03	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B99;LINKAGE=EP
[2] Corresponds to $E_\gamma > 1.5$ GeV. The limit changes to 3.3×10^{-6} for $E_\gamma > 2.0$ GeV. NODE=S041B99;LINKAGE=A

$\Gamma(p\overline{\Lambda}\pi^0)/\Gamma_{total}$ Γ_{612}/Γ

NODE=S041T30
NODE=S041T30

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$3.00^{+0.61}_{-0.53} \pm 0.33$	[1] WANG	07C	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T30;LINKAGE=EP

$\Gamma(p\overline{\Sigma}(1385)^0)/\Gamma_{total}$ Γ_{613}/Γ

NODE=S041T31
NODE=S041T31

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.47	90	[1] WANG	07C	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T31;LINKAGE=EP

$\Gamma(\Delta^+\overline{\Lambda})/\Gamma_{total}$ Γ_{614}/Γ

NODE=S041T32
NODE=S041T32

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.82	90	[1] WANG	07C	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T32;LINKAGE=EP

$\Gamma(p\overline{\Sigma}\gamma)/\Gamma_{total}$ Γ_{615}/Γ

NODE=S041B00
NODE=S041B00

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<4.6	90	[1] LEE	05	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<7.9	90	[2] EDWARDS	03	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B00;LINKAGE=EP
[2] Corresponds to $E_\gamma > 1.5$ GeV. The limit changes to 6.4×10^{-6} for $E_\gamma > 2.0$ GeV. NODE=S041B00;LINKAGE=A

$\Gamma(p\overline{\Lambda}\pi^+\pi^-)/\Gamma_{total}$ Γ_{616}/Γ

NODE=S041R24
NODE=S041R24

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
$11.28^{+0.91}_{-0.72} \pm 1.03$		[1] CHEN	09C	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<200	90	[2] ALBRECHT	88F	ARG	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R24;LINKAGE=EP
[2] ALBRECHT 88F reports $< 1.8 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 45% to $B^0 \overline{B}^0$. We rescale to 50%. NODE=S041R24;LINKAGE=B

$\Gamma(p\overline{\Lambda}\pi^+\pi^-$ nonresonant$)/\Gamma_{total}$ Γ_{617}/Γ

NODE=S041P61
NODE=S041P61

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$5.92^{+0.88}_{-0.84} \pm 0.69$	[1] CHEN	09C	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P61;LINKAGE=A

$\Gamma(p\overline{\Lambda}\rho^0,\ \rho^0 \to \pi^+\pi^-)/\Gamma_{total}$ Γ_{618}/Γ

NODE=S041T60
NODE=S041T60

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
$4.78^{+0.67}_{-0.64} \pm 0.60$	[1] CHEN	09C	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T60;LINKAGE=EP

$\Gamma(p\overline{\Lambda} f_2(1270),\ f_2 \to \pi^+\pi^-)/\Gamma_{total}$ — Γ_{619}/Γ

NODE=S041T61
NODE=S041T61

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
$2.03^{+0.77}_{-0.72}\pm0.27$	[1] CHEN 09C	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T61;LINKAGE=EP

$\Gamma(p\overline{\Lambda} K^+ K^-)/\Gamma_{total}$ — Γ_{620}/Γ

NODE=S041P54
NODE=S041P54

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
$4.10^{+0.45}_{-0.43}\pm0.50$	[1] LU 19	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P54;LINKAGE=A

$\Gamma(p\overline{\Lambda}\phi)/\Gamma_{total}$ — Γ_{621}/Γ

NODE=S041P55
NODE=S041P55

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
$0.795\pm0.209\pm0.077$	[1] LU 19	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P55;LINKAGE=A

$\Gamma(\overline{p}\Lambda K^+ K^-)/\Gamma_{total}$ — Γ_{622}/Γ

NODE=S041P56
NODE=S041P56

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
$3.70^{+0.39}_{-0.37}\pm0.44$	[1] LU 19	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P56;LINKAGE=A

$\Gamma(\Lambda\overline{\Lambda}\pi^+)/\Gamma_{total}$ — Γ_{623}/Γ

NODE=S041Q10
NODE=S041Q10

VALUE (units 10^{-6})	CL%	DOCUMENT ID	TECN	COMMENT
<0.94	90	[1,2] CHANG 09	BELL	Repl. by CHANG 09
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<2.8	90	[2] LEE 04	BELL	$e^+e^- \to \Upsilon(4S)$

[1] For $m_{\Lambda\overline{\Lambda}} < 2.85$ GeV/c^2. NODE=S041Q10;LINKAGE=CH
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q10;LINKAGE=EP

$\Gamma(\Lambda\overline{\Lambda} K^+)/\Gamma_{total}$ — Γ_{624}/Γ

NODE=S041Q11
NODE=S041Q11

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
$3.38^{+0.41}_{-0.36}\pm0.41$	[1,2] CHANG 09	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$2.91^{+0.9}_{-0.70}\pm0.38$	[2] LEE 04	BELL	Repl. by CHANG 09

[1] Excluding charmonium events in $2.85 < m_{\Lambda\overline{\Lambda}} < 3.128$ GeV/c^2 and $3.315 < m_{\Lambda\overline{\Lambda}} < 3.735$ GeV/c^2. Measurements in various $m_{\Lambda\overline{\Lambda}}$ bins are also reported. NODE=S041Q11;LINKAGE=CH
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041Q11;LINKAGE=EP

$\Gamma(\Lambda\overline{\Lambda} K^{*+})/\Gamma_{total}$ — Γ_{625}/Γ

NODE=S041C61
NODE=S041C61

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
$2.19^{+1.13}_{-0.88}\pm0.33$	[1,2] CHANG 09	BELL	$e^+e^- \to \Upsilon(4S)$

[1] For $m_{\Lambda\overline{\Lambda}} < 2.85$ GeV/c^2. NODE=S041C61;LINKAGE=CH
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C61;LINKAGE=EP

$\Gamma(\Lambda(1520)\overline{\Lambda} K^+)/\Gamma_{total}$ — Γ_{626}/Γ

NODE=S041P57
NODE=S041P57

VALUE (units 10^{-6})	DOCUMENT ID	TECN	COMMENT
$2.23\pm0.63\pm0.25$	[1] LU 19	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P57;LINKAGE=A

$\Gamma(\Lambda\overline{\Lambda}(1520) K^+)/\Gamma_{total}$ — Γ_{627}/Γ

NODE=S041P58
NODE=S041P58

VALUE	DOCUMENT ID	TECN	COMMENT
$<2.08\times10^{-6}$	[1] LU 19	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P58;LINKAGE=A

$\Gamma(\overline{\Delta}^0 p)/\Gamma_{total}$ — Γ_{628}/Γ

NODE=S041R37

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
< 1.38	90	[1] WEI	08	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<380	90	[2] BORTOLETTO	89	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R37;LINKAGE=EP

[2] BORTOLETTO 89 reports $< 3.3 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R37;LINKAGE=A1

$\Gamma(\Delta^{++}\overline{p})/\Gamma_{total}$ — Γ_{629}/Γ

NODE=S041R38

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
< 0.14	90	[1] WEI	08	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<150	90	[2] BORTOLETTO	89	CLEO	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R38;LINKAGE=EP

[2] BORTOLETTO 89 reports $< 1.3 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R38;LINKAGE=A1

$\Gamma(D^+ p\overline{p})/\Gamma_{total}$ — Γ_{630}/Γ

NODE=S041B80

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.5 \times 10^{-5}$	90	[1] ABE	02W	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B80;LINKAGE=EP

$\Gamma(D^*(2010)^+ p\overline{p})/\Gamma_{total}$ — Γ_{631}/Γ

NODE=S041B81

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.5 \times 10^{-5}$	90	[1] ABE	02W	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B81;LINKAGE=EP

$\Gamma(\overline{D}^0 p\overline{p}\pi^+)/\Gamma_{total}$ — Γ_{632}/Γ

NODE=S041C22

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
3.72±0.11±0.25	[1,2] DEL-AMO-SA..12	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Uses the values of D and D^* branching fractions from PDG 08. NODE=S041C22;LINKAGE=DA

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C22;LINKAGE=EP

$\Gamma(\overline{D}^{*0} p\overline{p}\pi^+)/\Gamma_{total}$ — Γ_{633}/Γ

NODE=S041C23

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
3.73±0.17±0.27	[1,2] DEL-AMO-SA..12	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Uses the values of D and D^* branching fractions from PDG 08. NODE=S041C23;LINKAGE=DA

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C23;LINKAGE=EP

$\Gamma(D^- p\overline{p}\pi^+\pi^-)/\Gamma_{total}$ — Γ_{634}/Γ

NODE=S041C24

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
1.66±0.13±0.27	[1,2] DEL-AMO-SA..12	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Uses the values of D and D^* branching fractions from PDG 08. NODE=S041C24;LINKAGE=DA

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C24;LINKAGE=EP

$\Gamma(D^{*-} p\overline{p}\pi^+\pi^-)/\Gamma_{total}$ — Γ_{635}/Γ

NODE=S041C25

VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT
1.86±0.16±0.19	[1,2] DEL-AMO-SA..12	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Uses the values of D and D^* branching fractions from PDG 08. NODE=S041C25;LINKAGE=DA

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C25;LINKAGE=EP

$\Gamma(p\overline{\Lambda}^0\overline{D}^0)/\Gamma_{total}$ — Γ_{636}/Γ

NODE=S041T72

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
$1.43^{+0.28}_{-0.25}\pm0.18$	[1,2] CHEN	11F	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Uses B($\Lambda \to p\pi^-$) = 63.9 ± 0.5%, B($D^0 \to K^-\pi^+$) = 3.89 ± 0.05%, and B($D^0 \to K^-\pi^+\pi^0$) = 13.9 ± 0.5%. NODE=S041T72;LINKAGE=CH

[2] Assumes equal production of B^0 and B^+ from Upsilon(4S) decays. NODE=S041T72;LINKAGE=EP

$\Gamma(p\overline{\Lambda}^0\overline{D}^*(2007)^0)/\Gamma_{\text{total}}$ Γ_{637}/Γ

NODE=S041T73
NODE=S041T73

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
<5	90	[1,2,3] CHEN	11F	BELL	$e^+e^- \to \Upsilon(4S)$

[1] CHEN 11F reports $< 4.8 \times 10^{-5}$ from a measurement of $[\Gamma(B^+ \to p\overline{\Lambda}^0\overline{D}^*(2007)^0)/\Gamma_{\text{total}}] / [\text{B}(D^*(2007)^0 \to D^0\pi^0)]$ assuming $\text{B}(D^*(2007)^0 \to D^0\pi^0) = (61.9 \pm 2.9) \times 10^{-2}$, which we rescale to our best value $\text{B}(D^*(2007)^0 \to D^0\pi^0) = 64.7 \times 10^{-2}$. NODE=S041T73;LINKAGE=CE

[2] Uses $\text{B}(\Lambda \to p\pi^-) = 63.9 \pm 0.5\%$ and $\text{B}(D^0 \to K^-\pi^+) = 3.89 \pm 0.05\%$. NODE=S041T73;LINKAGE=CH

[3] Assumes equal production of B^0 and B^+ from Upsilon(4S) decays. NODE=S041T73;LINKAGE=EP

$\Gamma(\overline{\Lambda}_c^- p\pi^+)/\Gamma_{\text{total}}$ Γ_{638}/Γ

NODE=S041B14
NODE=S041B14

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
2.2 ±0.4 OUR AVERAGE	Error includes scale factor of 2.5. See the ideogram below.			
$2.69 \pm 0.16 {}^{+0.11}_{-0.10}$	[1,2] AUBERT	08BN	BABR	$e^+e^- \to \Upsilon(4S)$
$1.59 \pm 0.20 \pm 0.06$	[1,3] GABYSHEV	06A	BELL	$e^+e^- \to \Upsilon(4S)$
$1.9 \pm 0.5 \pm 0.1$	[1,4] DYTMAN	02	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$1.5 \pm 0.4 \pm 0.1$	[1,5] GABYSHEV	02	BELL	Repl. by GABYSHEV 06A
$6.2 {}^{+2.3}_{-2.0} \pm 1.6$	[1,6] FU	97	CLE2	Repl. by DYTMAN 02

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B14;LINKAGE=EP

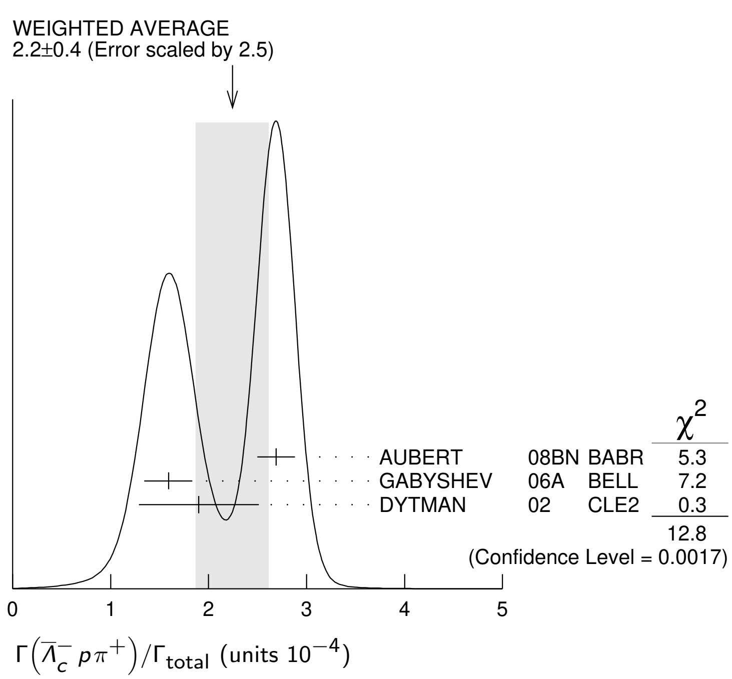
[2] AUBERT 08BN reports $(3.4 \pm 0.1 \pm 0.9) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to \overline{\Lambda}_c^- p\pi^+)/\Gamma_{\text{total}}] \times [\text{B}(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $\text{B}(\Lambda_c^+ \to pK^-\pi^+) = (5.0 \pm 1.3) \times 10^{-2}$, which we rescale to our best value $\text{B}(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B14;LINKAGE=UB

[3] GABYSHEV 06A reports $(2.01 \pm 0.15 \pm 0.20) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to \overline{\Lambda}_c^- p\pi^+)/\Gamma_{\text{total}}] \times [\text{B}(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $\text{B}(\Lambda_c^+ \to pK^-\pi^+) = 0.05$, which we rescale to our best value $\text{B}(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B14;LINKAGE=GA

[4] DYTMAN 02 reports $(2.4 {}^{+0.63}_{-0.62}) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to \overline{\Lambda}_c^- p\pi^+)/\Gamma_{\text{total}}] \times [\text{B}(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $\text{B}(\Lambda_c^+ \to pK^-\pi^+) = 0.05$, which we rescale to our best value $\text{B}(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B14;LINKAGE=B9

[5] GABYSHEV 02 reports $(1.87 {}^{+0.51}_{-0.49}) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to \overline{\Lambda}_c^- p\pi^+)/\Gamma_{\text{total}}] \times [\text{B}(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $\text{B}(\Lambda_c^+ \to pK^-\pi^+) = 0.05$, which we rescale to our best value $\text{B}(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B14;LINKAGE=G9

[6] FU 97 uses PDG 96 values of Λ_c branching fraction. NODE=S041B14;LINKAGE=A



$\Gamma(\overline{\Lambda}_c^- p K^+)/\Gamma(\overline{\Lambda}_c^- p \pi^+)$ — $\Gamma_{639}/\Gamma_{638}$

NODE=S041D28

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
3.97±0.23±0.12	AAIJ	24T	LHCB	pp at 7, 8, 13 TeV

$\Gamma(\overline{\Lambda}_c^- \Delta(1232)^{++})/\Gamma_{total}$ — Γ_{640}/Γ

NODE=S041R06

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
<1.9	90	GABYSHEV	06A	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

$\Gamma(\overline{\Lambda}_c^- \Delta_X(1600)^{++})/\Gamma_{total}$ — Γ_{641}/Γ

NODE=S041R07

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
4.7±0.9 OUR AVERAGE [$(4.6 \pm 0.9) \times 10^{-5}$ OUR 2025 AVERAGE]				
4.7±0.9±0.2	[1] GABYSHEV	06A	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

NEW

[1] GABYSHEV 06A reports $(5.9 \pm 1.0 \pm 0.6) \times 10^{-5}$ from a measurement of $[\Gamma(B^+ \rightarrow \overline{\Lambda}_c^- \Delta_X(1600)^{++})/\Gamma_{total}] \times [B(\Lambda_c^+ \rightarrow pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \rightarrow pK^-\pi^+) = 0.05$, which we rescale to our best value $B(\Lambda_c^+ \rightarrow pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041R07;LINKAGE=GA

$\Gamma(\overline{\Lambda}_c^- \Delta_X(2420)^{++})/\Gamma_{total}$ — Γ_{642}/Γ

NODE=S041R08

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
$3.7^{+0.9}_{-0.8}\pm0.1$	[1] GABYSHEV	06A	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

[1] GABYSHEV 06A reports $(4.7^{+1.0}_{-0.9} \pm 0.4) \times 10^{-5}$ from a measurement of $[\Gamma(B^+ \rightarrow \overline{\Lambda}_c^- \Delta_X(2420)^{++})/\Gamma_{total}] \times [B(\Lambda_c^+ \rightarrow pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \rightarrow pK^-\pi^+) = 0.05$, which we rescale to our best value $B(\Lambda_c^+ \rightarrow pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041R08;LINKAGE=GA

$\Gamma((\overline{\Lambda}_c^- p)_s \pi^+)/\Gamma_{total}$ — Γ_{643}/Γ

NODE=S041R09

$(\overline{\Lambda}_c^- p)_s$ denotes a low-mass enhancement near 3.35 GeV/c^2.

NODE=S041R09

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
$3.1^{+0.7}_{-0.6}\pm0.1$	[1] GABYSHEV	06A	BELL	$e^+e^- \rightarrow \Upsilon(4S)$

[1] GABYSHEV 06A reports $(3.9^{+0.8}_{-0.7} \pm 0.4) \times 10^{-5}$ from a measurement of $[\Gamma(B^+ \rightarrow (\overline{\Lambda}_c^- p)_s \pi^+)/\Gamma_{total}] \times [B(\Lambda_c^+ \rightarrow pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \rightarrow pK^-\pi^+) = 0.05$, which we rescale to our best value $B(\Lambda_c^+ \rightarrow pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041R09;LINKAGE=GA

$\Gamma(\overline{\Sigma}_c(2520)^0 p)/\Gamma_{total}$ — Γ_{644}/Γ

NODE=S041B89

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
<0.3	90	[1,2] AUBERT	08BN	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.7	90	[1,2] GABYSHEV	06A	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
<4.6	90	[1,2] GABYSHEV	02	BELL	Repl. by GABYSHEV 06A

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B89;LINKAGE=EP

[2] Uses the value for $\Lambda_c \rightarrow pK^-\pi^+$ branching ratio $(5.0 \pm 1.3)\%$.

NODE=S041B89;LINKAGE=GB

$\Gamma(\overline{\Sigma}_c(2520)^0 p)/\Gamma(\overline{\Lambda}_c^- p \pi^+)$ — $\Gamma_{644}/\Gamma_{638}$

NODE=S041C49

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<9	90	AUBERT	08BN	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

$\Gamma(\overline{\Sigma}_c(2800)^0 p)/\Gamma_{total}$ — Γ_{645}/Γ

NODE=S041C50

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
2.6±0.7±0.4	[1] AUBERT	08BN	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] AUBERT 08BN reports $[\Gamma(B^+ \rightarrow \overline{\Sigma}_c(2800)^0 p)/\Gamma_{total}]$ / $[B(B^+ \rightarrow \overline{\Lambda}_c^- p\pi^+)] = 0.117 \pm 0.023 \pm 0.024$ which we multiply by our best value $B(B^+ \rightarrow \overline{\Lambda}_c^- p\pi^+) = (2.2 \pm 0.4) \times 10^{-4}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=S041C50;LINKAGE=UB

$\Gamma(\overline{\Lambda}_c^- p \pi^+ \pi^0)/\Gamma_{total}$ Γ_{646}/Γ

NODE=S041B11

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
$1.81 \pm 0.29^{+0.52}_{-0.50}$		[1,2] DYTMAN	02	CLE2	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<3.12	90	[3] FU	97	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B11;LINKAGE=EP

[2] DYTMAN 02 measurement uses B($\Lambda_c^- \to \overline{p} K^+ \pi^-$) = 5.0 ± 1.3%. The second error includes the systematic and the uncertainty of the branching ratio. NODE=S041B11;LINKAGE=FP

[3] FU 97 uses PDG 96 values of Λ_c branching ratio. NODE=S041B11;LINKAGE=A

$\Gamma(\overline{\Lambda}_c^- p \pi^+ \pi^+ \pi^-)/\Gamma_{total}$ Γ_{647}/Γ

NODE=S041B12

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
$2.25 \pm 0.25^{+0.63}_{-0.61}$		[1,2] DYTMAN	02	CLE2	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1.46	90	[3] FU	97	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B12;LINKAGE=EP

[2] DYTMAN 02 measurement uses B($\Lambda_c^- \to \overline{p} K^+ \pi^-$) = 5.0 ± 1.3%. The second error includes the systematic and the uncertainty of the branching ratio. NODE=S041B12;LINKAGE=FP

[3] FU 97 uses PDG 96 values of Λ_c branching ratio. NODE=S041B12;LINKAGE=A

$\Gamma(\overline{\Lambda}_c^- p \pi^+ \pi^+ \pi^- \pi^0)/\Gamma_{total}$ Γ_{648}/Γ

NODE=S041B13

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.34 \times 10^{-2}$	90	[1] FU	97	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] FU 97 uses PDG 96 values of Λ_c branching ratio. NODE=S041B13;LINKAGE=A

$\Gamma(\Lambda_c^+ \Lambda_c^- K^+)/\Gamma_{total}$ Γ_{649}/Γ

NODE=S041R02

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
4.9 ±0.7 OUR AVERAGE				
4.80±0.43±0.60	LI	18A	BELL	$e^+ e^- \to \Upsilon(4S)$
$9.0 \pm 4.5 {}^{+0.4}_{-0.3}$	[1,2] AUBERT	08H	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$6.2 {}^{+2.5}_{-2.4} \pm 0.2$	[2,3] GABYSHEV	06	BELL	Repl. by LI 18A.

[1] AUBERT 08H reports $(1.14 \pm 0.15 \pm 0.62) \times 10^{-3}$ from a measurement of [$\Gamma(B^+ \to \Lambda_c^+ \Lambda_c^- K^+)/\Gamma_{total}$] × [B($\Lambda_c^+ \to p K^- \pi^+$)] assuming B($\Lambda_c^+ \to p K^- \pi^+$) = $(5.0 \pm 1.3) \times 10^{-2}$, which we rescale to our best value B($\Lambda_c^+ \to p K^- \pi^+$) = $(6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R02;LINKAGE=AU

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R02;LINKAGE=EP

[3] GABYSHEV 06 reports $(7.9^{+1.0}_{-0.9} \pm 3.6) \times 10^{-4}$ from a measurement of [$\Gamma(B^+ \to \Lambda_c^+ \Lambda_c^- K^+)/\Gamma_{total}$] × [B($\Lambda_c^+ \to p K^- \pi^+$)] assuming B($\Lambda_c^+ \to p K^- \pi^+$) = $(5.0 \pm 1.3) \times 10^{-2}$, which we rescale to our best value B($\Lambda_c^+ \to p K^- \pi^+$) = $(6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R02;LINKAGE=AG

$\Gamma(\Lambda_c^+ \Lambda_c^- K^+)/\Gamma(D^- D^+ K^+)$ $\Gamma_{649}/\Gamma_{228}$

NODE=S041A71

VALUE	DOCUMENT ID		TECN	COMMENT
2.36±0.11±0.33	[1] AAIJ	23X	LHCB	pp at 13 TeV

[1] The second uncertainty includes both systematic (±0.22) and the charm decay branching fraction (±0.25). NODE=S041A71;LINKAGE=A

$\Gamma(\Xi_c(2930) \Lambda_c^+,\ \Xi_c \to K^+ \Lambda_c^-)/\Gamma_{total}$ Γ_{650}/Γ

NODE=S041P53

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
1.73±0.45±0.21	[1] LI	18A	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] The $\Xi_c(2930)$ is found in its decay to $K^- \Lambda_c^+$ in $B^- \to K^- \Lambda_c^- \Lambda_c^+$ with a significance more than 5 sigma. NODE=S041P53;LINKAGE=A

$\Gamma(\overline{\Sigma}_c(2455)^0 p)/\Gamma_{total}$ — Γ_{651}/Γ

NODE=S041B88

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
2.9±0.6±0.1		[1,2] GABYSHEV	06A	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<8	90	[1,3] DYTMAN	02	CLE2	$e^+ e^- \to \Upsilon(4S)$
<9.3	90	[1,4] GABYSHEV	02	BELL	Repl. by GABYSHEV 06A

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B88;LINKAGE=EP

[2] GABYSHEV 06A reports $(3.7 \pm 0.7 \pm 0.4) \times 10^{-5}$ from a measurement of $[\Gamma(B^+ \to \overline{\Sigma}_c(2455)^0 p)/\Gamma_{total}] \times [B(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \to pK^-\pi^+) = 0.05$, which we rescale to our best value $B(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B88;LINKAGE=GA

[3] DYTMAN 02 measurement uses $B(\Lambda_c^- \to \overline{p} K^+ \pi^-) = 5.0 \pm 1.3\%$. The second error includes the systematic and the uncertainty of the branching ratio. NODE=S041B88;LINKAGE=FP

[4] Uses the value for $\Lambda_c \to pK^-\pi^+$ branching ratio $(5.0 \pm 1.3)\%$. NODE=S041B88;LINKAGE=GB

$\Gamma(\overline{\Sigma}_c(2455)^0 p)/\Gamma(\overline{\Lambda}_c^- p \pi^+)$ — $\Gamma_{651}/\Gamma_{638}$

NODE=S041C17

VALUE	DOCUMENT ID		TECN	COMMENT
0.123±0.012±0.008	[1] AUBERT	08BN	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041C17;LINKAGE=EP

$\Gamma(\overline{\Sigma}_c(2455)^0 p \pi^0)/\Gamma_{total}$ — Γ_{652}/Γ

NODE=S041B79

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
3.5±1.1±0.1	[1,2] DYTMAN	02	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] DYTMAN 02 reports $(4.4 \pm 1.4) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to \overline{\Sigma}_c(2455)^0 p\pi^0)/\Gamma_{total}] \times [B(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \to pK^-\pi^+) = 0.05$, which we rescale to our best value $B(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B79;LINKAGE=B9

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B79;LINKAGE=EP

$\Gamma(\overline{\Sigma}_c(2455)^0 p \pi^- \pi^+)/\Gamma_{total}$ — Γ_{653}/Γ

NODE=S041B76

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
3.5±1.0±0.1	[1,2] DYTMAN	02	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] DYTMAN 02 reports $(4.4 \pm 1.3) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to \overline{\Sigma}_c(2455)^0 p\pi^-\pi^+)/\Gamma_{total}] \times [B(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \to pK^-\pi^+) = 0.05$, which we rescale to our best value $B(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B76;LINKAGE=B9

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B76;LINKAGE=EP

$\Gamma(\overline{\Sigma}_c(2455)^{--} p \pi^+ \pi^+)/\Gamma_{total}$ — Γ_{654}/Γ

NODE=S041B77

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
2.35±0.18 OUR AVERAGE				
[$(2.34 \pm 0.18) \times 10^{-4}$ OUR 2025 AVERAGE]				
2.36±0.16±0.09	[1,2] LEES	12Z	BABR	$e^+ e^- \to \Upsilon(4S)$
2.2 ±0.8 ±0.1	[1,3] DYTMAN	02	CLE2	$e^+ e^- \to \Upsilon(4S)$

NEW

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B77;LINKAGE=EP

[2] LEES 12Z reports $(2.98 \pm 0.16 \pm 0.15 \pm 0.77) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to \overline{\Sigma}_c(2455)^{--} p\pi^+\pi^+)/\Gamma_{total}] \times [B(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \to pK^-\pi^+) = (5.0 \pm 1.3) \times 10^{-2}$, which we rescale to our best value $B(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B77;LINKAGE=LE

[3] DYTMAN 02 reports $(2.8 \pm 0.9 \pm 0.5 \pm 0.7) \times 10^{-4}$ from a measurement of $[\Gamma(B^+ \to \overline{\Sigma}_c(2455)^{--} p\pi^+\pi^+)/\Gamma_{total}] \times [B(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \to pK^-\pi^+) = (5.0 \pm 1.3) \times 10^{-2}$, which we rescale to our best value $B(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041B77;LINKAGE=B9

$\Gamma(\overline{\Lambda}_c(2593)^- / \overline{\Lambda}_c(2625)^- p\pi^+)/\Gamma_{total}$ Γ_{655}/Γ

NODE=S041B78

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.9 × 10⁻⁴	90	[1,2] DYTMAN	02	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B78;LINKAGE=EP

[2] DYTMAN 02 measurement uses B($\Lambda_c^- \to \overline{p}K^+\pi^-$) = 5.0 ± 1.3%. The second error includes the systematic and the uncertainty of the branching ratio. NODE=S041B78;LINKAGE=FP

$\Gamma(\Xi_c^0 \Lambda_c^+)/\Gamma_{total}$ Γ_{656}/Γ

NODE=S041P59

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
9.51±2.10±0.88	[1] LI	19A	BELL	$e^+e^- \to \Upsilon(4S)$

[1] First measured the absolute branching fraction using a missing-mass technique. NODE=S041P59;LINKAGE=A

$\Gamma(\Xi_c^0 \Lambda_c^+,\ \Xi_c^0 \to \Xi^+\pi^-)/\Gamma_{total}$ Γ_{658}/Γ

NODE=S041R04

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
1.76±0.29 OUR AVERAGE				
1.71±0.28±0.15	[1] LI	19A	BELL	$e^+e^- \to \Upsilon(4S)$
2.0 ±0.7 ±0.1	[2,3] AUBERT	08H	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$4.4\ ^{+1.8}_{-1.5}\ \pm0.2$	[3,4] CHISTOV	06A	BELL	Repl. by LI 19A

[1] Using a hadronic B-tagging method based on a full reconstruction. NODE=S041R04;LINKAGE=A

[2] AUBERT 08H reports $(2.51 \pm 0.89 \pm 0.61) \times 10^{-5}$ from a measurement of $[\Gamma(B^+ \to \Xi_c^0 \Lambda_c^+,\ \Xi_c^0 \to \Xi^+\pi^-)/\Gamma_{total}] \times [B(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \to pK^-\pi^+) = (5.0 \pm 1.3) \times 10^{-2}$, which we rescale to our best value $B(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R04;LINKAGE=AU

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R04;LINKAGE=EP

[4] CHISTOV 06A reports $(5.6^{+1.9}_{-1.5} \pm 1.9) \times 10^{-5}$ from a measurement of $[\Gamma(B^+ \to \Xi_c^0 \Lambda_c^+,\ \Xi_c^0 \to \Xi^+\pi^-)/\Gamma_{total}] \times [B(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \to pK^-\pi^+) = (5.0 \pm 1.3) \times 10^{-2}$, which we rescale to our best value $B(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R04;LINKAGE=CH

$\Gamma(\Xi_c^0 \Lambda_c^+,\ \Xi_c^0 \to \Lambda K^+\pi^-)/\Gamma_{total}$ Γ_{659}/Γ

NODE=S041R05

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
1.14±0.26 OUR AVERAGE				
1.11±0.26±0.10	[1] LI	19A	BELL	$e^+e^- \to \Upsilon(4S)$
1.3 ±0.8 ±0.1	[2,3] AUBERT	08H	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$3.2\ ^{+1.1}_{-0.9}\ \pm0.1$	[3,4] CHISTOV	06A	BELL	Repl. by LI 19A

[1] Using a hadronic B-tagging method based on a full reconstruction. NODE=S041R05;LINKAGE=A

[2] AUBERT 08H reports $(1.70 \pm 0.93 \pm 0.53) \times 10^{-5}$ from a measurement of $[\Gamma(B^+ \to \Xi_c^0 \Lambda_c^+,\ \Xi_c^0 \to \Lambda K^+\pi^-)/\Gamma_{total}] \times [B(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \to pK^-\pi^+) = (5.0 \pm 1.3) \times 10^{-2}$, which we rescale to our best value $B(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R05;LINKAGE=AU

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R05;LINKAGE=EP

[4] CHISTOV 06A reports $(4.0^{+1.1}_{-0.9} \pm 1.3) \times 10^{-5}$ from a measurement of $[\Gamma(B^+ \to \Xi_c^0 \Lambda_c^+,\ \Xi_c^0 \to \Lambda K^+\pi^-)/\Gamma_{total}] \times [B(\Lambda_c^+ \to pK^-\pi^+)]$ assuming $B(\Lambda_c^+ \to pK^-\pi^+) = (5.0 \pm 1.3) \times 10^{-2}$, which we rescale to our best value $B(\Lambda_c^+ \to pK^-\pi^+) = (6.32 \pm 0.24) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S041R05;LINKAGE=CH

$\Gamma(\Xi_c^0 \Lambda_c^+,\ \Xi_c^0 \to pK^-K^-\pi^+)/\Gamma_{total}$ Γ_{660}/Γ

NODE=S041P60

VALUE (units 10^{-6})	DOCUMENT ID		TECN	COMMENT
5.47±1.78±0.57	[1] LI	19A	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Using a hadronic B-tagging method based on a full reconstruction. NODE=S041P60;LINKAGE=A

$\Gamma(\Lambda_c^+ \Xi_c'^0)/\Gamma_{\text{total}}$ Γ_{661}/Γ

NODE=S041P71
NODE=S041P71

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<6.5 × 10^{-4}	90	[1] LI	19G	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Uses fully reconstructed B^+ meson on tag side and recoil against Λ_c^+ on signal side.

NODE=S041P71;LINKAGE=A

$\Gamma(\Lambda_c^+ \Xi_c(2645)^0)/\Gamma_{\text{total}}$ Γ_{662}/Γ

NODE=S041P72
NODE=S041P72

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<7.9 × 10^{-4}	90	[1] LI	19G	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Uses fully reconstructed B^+ meson on tag side and recoil against Λ_c^+ on signal side.

NODE=S041P72;LINKAGE=A

$\Gamma(\Lambda_c^+ \Xi_c(2790)^0)/\Gamma_{\text{total}}$ Γ_{663}/Γ

NODE=S041P73
NODE=S041P73

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
1.1±0.4±0.2	[1] LI	19G	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Uses fully reconstructed B^+ meson on tag side and recoil against Λ_c^+ on signal side.

NODE=S041P73;LINKAGE=A

$\Gamma(\Lambda_c^+ \psi_{DS})/\Gamma_{\text{total}}$ Γ_{664}/Γ

NODE=S041D50
NODE=S041D50

VALUE	DOCUMENT ID		TECN	COMMENT
< 1.6–1.7 × 10^{-4}	[1] LEES	25	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] LEES 25 searched for ψ_{DS} in the recoil mass against Λ_c^+ and the fully reconstructed accompanying B meson. The cited upper limit is for m(ψ_{DS}) between 0.94 and 2.99 GeV/c^2.

NODE=S041D50;LINKAGE=A

$\Gamma(p \psi_{DS})/\Gamma_{\text{total}}$ Γ_{665}/Γ

NODE=S041D21
NODE=S041D21

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
< 10^{-7}–10^{-5}	90	[1] LEES	23C	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] LEES 23C searched for ψ_{DS}, where ψ_{DS} is a dark sector antibaryon, in the recoil mass against p and the fully reconstructed accompanying B meson. The cited upper limit is for $m_{\psi_{DS}}$ between 1 and 4.3 GeV/c^2.

NODE=S041D21;LINKAGE=A

$\Gamma(\pi^+ \ell^+ \ell^-)/\Gamma_{\text{total}}$ Γ_{666}/Γ

NODE=S041T20
NODE=S041T20

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<4.9 × 10^{-8}	90	[1] WEI	08A	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<6.6 × 10^{-8}	90	[1] LEES	13M	BABR	$e^+ e^- \to \Upsilon(4S)$
<1.2 × 10^{-7}	90	[1] AUBERT	07AG	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T20;LINKAGE=EP

$\Gamma(\pi^+ e^+ e^-)/\Gamma_{\text{total}}$ Γ_{667}/Γ

NODE=S041R52

Test for ΔB=1 weak neutral current. Allowed by higher-order electroweak interactions.

NODE=S041R52
NODE=S041R52

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
< 5.4 × 10^{-8}	90	ADACHI	24N	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<12.5 × 10^{-8}	90	[1] LEES	13M	BABR	$e^+ e^- \to \Upsilon(4S)$
< 8.0 × 10^{-8}	90	[1] WEI	08A	BELL	$e^+ e^- \to \Upsilon(4S)$
<18 × 10^{-8}	90	[1] AUBERT	07AG	BABR	$e^+ e^- \to \Upsilon(4S)$
< 3.9 × 10^{-3}	90	[2] WEIR	90B	MRK2	$e^+ e^-$ 29 GeV

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.
[2] WEIR 90B assumes B^+ production cross section from LUND.

NODE=S041R52;LINKAGE=EP
NODE=S041R52;LINKAGE=A

$\Gamma(\pi^+ \mu^+ \mu^-)/\Gamma_{\text{total}}$ Γ_{668}/Γ

NODE=S041R55

Test for ΔB=1 weak neutral current. Allowed by higher-order electroweak interactions.

NODE=S041R55
NODE=S041R55

VALUE (units 10^{-8})	CL%	DOCUMENT ID		TECN	COMMENT
1.78±0.22 OUR AVERAGE	[(1.78 ± 0.23) × 10^{-8} OUR 2025 AVERAGE]				
1.78±0.22±0.03		[1] AAIJ	15AR	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
< 5.5	90	[2] LEES	13M	BABR	$e^+ e^- \to \Upsilon(4S)$
2.3 ±0.6 ±0.1		AAIJ	12AY	LHCB	Repl. by AAIJ 15AR
< 6.9	90	[2] WEI	08A	BELL	$e^+ e^- \to \Upsilon(4S)$
<28	90	[2] AUBERT	07AG	BABR	$e^+ e^- \to \Upsilon(4S)$

NEW

[1] AAIJ 15AR reports $(1.83 \pm 0.24 \pm 0.05) \times 10^{-8}$ from a measurement of $[\Gamma(B^+ \to \pi^+\mu^+\mu^-)/\Gamma_{total}]$ / $[B(B^+ \to J/\psi(1S)K^+)]$ / $[B(J/\psi(1S) \to \mu^+\mu^-)]$ assuming $B(B^+ \to J/\psi(1S)K^+) = (1.05 \pm 0.05) \times 10^{-3}$, $B(J/\psi(1S) \to \mu^+\mu^-) = (5.961 \pm 0.033) \times 10^{-2}$, which we rescale to our best values $B(B^+ \to J/\psi(1S)K^+) = (1.019 \pm 0.019) \times 10^{-3}$, $B(J/\psi(1S) \to \mu^+\mu^-) = (5.961 \pm 0.033) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best values. NODE=S041R55;LINKAGE=B

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R55;LINKAGE=EP

$\Gamma(\pi^+\mu^+\mu^-)/\Gamma(K^+\mu^+\mu^-)$ — $\Gamma_{668}/\Gamma_{675}$

NODE=S041T91
NODE=S041T91

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.053 \pm 0.014 \pm 0.001$	AAIJ	12AY	LHCB	Repl. by AAIJ 15AR

$\Gamma(\rho(770)^+ e^+ e^-)/\Gamma_{total}$ — Γ_{669}/Γ

NODE=S041D33
NODE=S041D33

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<46.7 \times 10^{-8}$	90	ADACHI	24N	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\rho(770)^+ \mu^+ \mu^-)/\Gamma_{total}$ — Γ_{670}/Γ

NODE=S041D34
NODE=S041D34

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<38.1 \times 10^{-8}$	90	ADACHI	24N	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma(\rho(770)^+ \ell^+ \ell^-)/\Gamma_{total}$ — Γ_{671}/Γ

NODE=S041D35
NODE=S041D35

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<18.9 \times 10^{-8}$	90	[1] ADACHI	24N	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Where $\ell = e, \mu$. NODE=S041D35;LINKAGE=A

$\Gamma(\pi^+\nu\overline{\nu})/\Gamma_{total}$ — Γ_{672}/Γ

NODE=S041S05

Test for ΔB=1 weak neutral current. Allowed by higher-order electroweak interactions.

NODE=S041S05
NODE=S041S05

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.4 \times 10^{-5}$	90	[1] GRYGIER	17	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<9.8 \times 10^{-5}$	90	[1] LUTZ	13	BELL	$e^+e^- \to \Upsilon(4S)$
$<1.7 \times 10^{-4}$	90	[1] CHEN	07D	BELL	$e^+e^- \to \Upsilon(4S)$
$<1.0 \times 10^{-4}$	90	[1] AUBERT	05H	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041S05;LINKAGE=EP

$\Gamma(K^+\ell^+\ell^-)/\Gamma_{total}$ — Γ_{673}/Γ

NODE=S041RA1

Test for ΔB=1 weak neutral current. Allowed by higher-order electroweak interactions.

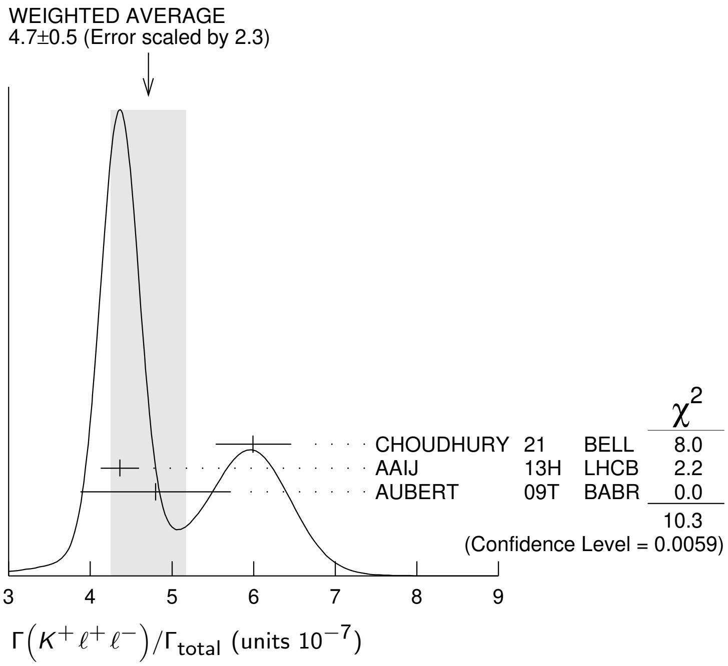
NODE=S041RA1
NODE=S041RA1

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
4.7 ±0.5 OUR AVERAGE Error includes scale factor of 2.3. See the ideogram below.				
$5.99^{+0.45}_{-0.43} \pm 0.14$	CHOUDHURY	21	BELL	$e^+e^- \to \Upsilon(4S)$
$4.36 \pm 0.15 \pm 0.18$	[1] AAIJ	13H	LHCB	pp at 7 TeV
$4.8 \pm 0.9 \pm 0.2$	[2] AUBERT	09T	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$5.3^{+0.6}_{-0.5} \pm 0.3$	[2,3] WEI	09A	BELL	$e^+e^- \to \Upsilon(4S)$
$3.8^{+0.9}_{-0.8} \pm 0.2$	[2] AUBERT,B	06J	BABR	Repl. by AUBERT 09T
$5.3^{+1.1}_{-1.0} \pm 0.3$	[2] ISHIKAWA	03	BELL	Repl. by WEI 09A

[1] Uses $B(B^+ \to J/\psi K^+ \to \mu^+\mu^- K^+) = (6.01 \pm 0.21) \times 10^{-5}$. NODE=S041RA1;LINKAGE=AA

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041RA1;LINKAGE=EP

[3] Superseded by CHOUDHURY 21. NODE=S041RA1;LINKAGE=A



$\Gamma(K^+ e^+ e^-)/\Gamma_{\text{total}}$ Γ_{674}/Γ

NODE=S041R11

Test for ΔB=1 weak neutral current. Allowed by higher-order electroweak interactions.

NODE=S041R11
NODE=S041R11

VALUE (units 10^{-7})	CL%	DOCUMENT ID	TECN	COMMENT
5.6 ±0.6 OUR AVERAGE				
$5.75^{+0.64}_{-0.61}\pm0.15$		CHOUDHURY 21	BELL	$e^+e^- \to \Upsilon(4S)$
$5.1\ ^{+1.2}_{-1.1}\ \pm0.2$		[1] AUBERT 09T	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$5.7\ ^{+0.9}_{-0.8}\ \pm0.3$		[1,2] WEI 09A	BELL	$e^+e^- \to \Upsilon(4S)$
$4.2\ ^{+1.2}_{-1.1}\ \pm0.2$		[1] AUBERT,B 06J	BABR	Repl. by AUBERT 09T
$10.5\ ^{+2.5}_{-2.2}\ \pm0.7$		[1] AUBERT 03U	BABR	Repl. by AUBERT,B 06J
$6.3\ ^{+1.9}_{-1.7}\ \pm0.3$		[3] ISHIKAWA 03	BELL	Repl. by WEI 09A
<14	90	[1] ABE 02	BELL	$e^+e^- \to \Upsilon(4S)$
$<\ 9$	90	[1] AUBERT 02L	BABR	$e^+e^- \to \Upsilon(4S)$
<24	90	[4] ANDERSON 01B	CLE2	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R11;LINKAGE=EP
[2] Superseded by CHOUDHURY 21. NODE=S041R11;LINKAGE=B
[3] Assumes equal production of B^0 and B^+ at $\Upsilon(4S)$. The second error is a total of systematic uncertainties including model dependence. NODE=S041R11;LINKAGE=IS
[4] The result is for di-lepton masses above 0.5 GeV. NODE=S041R11;LINKAGE=DL

$\Gamma(K^+ \mu^+ \mu^-)/\Gamma_{\text{total}}$ Γ_{675}/Γ

NODE=S041R10

Test for ΔB=1 weak neutral current. Allowed by higher-order electroweak interactions.

NODE=S041R10
NODE=S041R10

VALUE (units 10^{-7})	CL%	DOCUMENT ID	TECN	COMMENT
4.53±0.35 OUR FIT Error includes scale factor of 1.8.				
4.5 ±0.6 OUR AVERAGE Error includes scale factor of 2.9.				
$6.24^{+0.65}_{-0.61}\pm0.16$		CHOUDHURY 21	BELL	$e^+e^- \to \Upsilon(4S)$
$4.29\pm0.07\pm0.21$		[1] AAIJ 14M	LHCB	pp at 7, 8 TeV
$4.1\ ^{+1.6}_{-1.5}\ \pm0.2$		[2] AUBERT 09T	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$4.36\pm0.15\pm0.18$		[3] AAIJ 13H	LHCB	Repl. by AAIJ 14M
$5.3\ ^{+0.8}_{-0.7}\ \pm0.3$		[2,4] WEI 09A	BELL	$e^+e^- \to \Upsilon(4S)$
$3.1\ ^{+1.5}_{-1.2}\ \pm0.3$		[2] AUBERT,B 06J	BABR	Repl. by AUBERT 09T
$0.7\ ^{+1.9}_{-1.1}\ \pm0.2$		[2] AUBERT 03U	BABR	Repl. by AUBERT,B 06J
$4.5\ ^{+1.4}_{-1.2}\ \pm0.3$		[5] ISHIKAWA 03	BELL	Repl. by WEI 09A
$9.8\ ^{+4.6}_{-3.6}\ \pm1.6$		[2] ABE 02	BELL	Repl. by ISHIKAWA 03

< 12	90	[2] AUBERT	02L	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
< 36.8	90	[6] ANDERSON	01B	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$
< 52	90	[7] AFFOLDER	99B	CDF	$p\overline{p}$ at 1.8 TeV
< 100	90	[8] ABE	96L	CDF	Repl. by AFFOLDER 99B
< 2400	90	[9] ALBRECHT	91E	ARG	$e^+e^- \rightarrow \Upsilon(4S)$
<64000	90	[10] WEIR	90B	MRK2	e^+e^- 29 GeV
< 1700	90	[11] AVERY	89B	CLEO	$e^+e^- \rightarrow \Upsilon(4S)$
< 3800	90	[12] AVERY	87	CLEO	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Uses B($B^+ \rightarrow J/\psi(1S)K^+$) = $(0.998 \pm 0.014 \pm 0.040) \times 10^{-3}$ for normalization. NODE=S041R10;LINKAGE=B
[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R10;LINKAGE=EP
[3] Uses B($B^+ \rightarrow J/\psi K^+ \rightarrow \mu^+\mu^- K^+$) = $(6.01 \pm 0.21) \times 10^{-5}$. NODE=S041R10;LINKAGE=AI
[4] Superseded by CHOUDHURY 21. NODE=S041R10;LINKAGE=C
[5] Assumes equal production of B^0 and B^+ at $\Upsilon(4S)$. The second error is a total of systematic uncertainties including model dependence. NODE=S041R10;LINKAGE=IS
[6] The result is for di-lepton masses above 0.5 GeV. NODE=S041R10;LINKAGE=DL
[7] AFFOLDER 99B measured relative to $B^+ \rightarrow J/\psi(1S)K^+$. NODE=S041R10;LINKAGE=N1
[8] ABE 96L measured relative to $B^+ \rightarrow J/\psi(1S)K^+$ using PDG 94 branching ratios. NODE=S041R10;LINKAGE=PB
[9] ALBRECHT 91E reports $< 2.2 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 45% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R10;LINKAGE=B2
[10] WEIR 90B assumes B^+ production cross section from LUND. NODE=S041R10;LINKAGE=A
[11] AVERY 89B reports $< 1.5 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 43% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R10;LINKAGE=A1
[12] AVERY 87 reports $< 3.2 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 40% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R10;LINKAGE=B1

$\Gamma(K^+\mu^+\mu^-$ nonresonant$)/\Gamma_{total}$ Γ_{676}/Γ

NODE=S041P41
NODE=S041P41

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
4.37±0.15±0.23	[1] AAIJ	17Y	LHCB	pp at 7, 8 TeV

[1] Measured in amplitude analysis using model including short-distance $K^+\mu^+\mu^-$ and $\rho(770)$, $\omega(782)$, $\phi(1020)$, J/ψ, $\psi(2S)$, $\psi(3770)$, $\psi(4040)$, $\psi(4160)$, and $\psi(4415)$ contributions. NODE=S041P41;LINKAGE=A

$\Gamma(K^+\tau^+\tau^-)/\Gamma_{total}$ Γ_{677}/Γ

NODE=S041P28
NODE=S041P28

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<2.25 × 10^{-3}	90	[1,2] LEES	17	BABR	$e^+e^- \rightarrow \Upsilon(4S)$

[1] Uses only leptonic decays of τ and the quoted limit combines the final states $K^+e^+e^-$, $K^+\mu^+\mu^-$, and $K^+e^\pm\mu^\mp$. NODE=S041P28;LINKAGE=A
[2] If observed events are interpreted as a signal the branching fraction measurement becomes $(1.31^{+0.66}_{-0.61}{}^{+0.35}_{-0.25}) \times 10^{-3}$. NODE=S041P28;LINKAGE=B

$\Gamma(K^+\mu^+\mu^-)/\Gamma(J/\psi(1S)K^+)$ $\Gamma_{675}/\Gamma_{316}$

NODE=S041T71
NODE=S041T71

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
0.444±0.034 OUR FIT Error includes scale factor of 1.7.				
0.46 ±0.04 ±0.02	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.38 ±0.05 ±0.02	AALTONEN	11L	CDF	Repl. by AALTONEN 11AI
0.59 ±0.15 ±0.03	AALTONEN	09B	CDF	Repl. by AALTONEN 11L

$\Gamma(K^+\overline{\nu}\nu)/\Gamma_{total}$ Γ_{678}/Γ

NODE=S041B51

Test for ΔB=1 weak neutral current. Allowed by higher-order electroweak interactions. NODE=S041B51

NODE=S041B51

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
$2.3 \pm 0.5^{+0.5}_{-0.4}$		[1] ADACHI	24E	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
< 4.1	90	[2] ABUDINEN	21	BEL2	$e^+e^- \rightarrow \Upsilon(4S)$
< 1.9	90	[3,4] GRYGIER	17	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
< 1.6	90	[4,5] LEES	13I	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
< 5.5	90	[4] LUTZ	13	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
< 1.3	90	[4] DEL-AMO-SA...	10Q	BABR	Repl. by LEES 13I
< 1.4	90	[4] CHEN	07D	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
< 5.2	90	[4] AUBERT	05H	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
<24	90	[4] BROWDER	01	CLE2	$e^+e^- \rightarrow \Upsilon(4S)$

OCCUR=3

[1] Taking an average value from two methods, using (1) a hadronic tagging of the other B meson in the event, and (2) an inclusive tagging method that exploits the inclusive properties of the other B meson in the event. NODE=S041B51;LINKAGE=D
[2] Using an inclusive tagging method that exploits not only the properties of the $B^+ \to K^+ \nu\overline{\nu}$ decay, but also the inclusive properties of the other B meson in the event. NODE=S041B51;LINKAGE=B
[3] The result was reported in arXiv:1702.03224, but missing from the publication by mistake. NODE=S041B51;LINKAGE=A
[4] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041B51;LINKAGE=EP
[5] Also reported a limit $< 3.7 \times 10^{-5}$ at 90% CL obtained using a fully reconstructed hadronic B-tag evnets. NODE=S041B51;LINKAGE=LE

$\Gamma(\rho^+ \nu\overline{\nu})/\Gamma_{\text{total}}$ Γ_{679}/Γ

NODE=S041T28

Test for $\Delta B = 1$ weak neutral current. Allowed by higher-order electroweak interaction. NODE=S041T28 NODE=S041T28

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<3.0 × 10^{-5}	90	[1] GRYGIER	17	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<2.13 \times 10^{-4}$	90	[1] LUTZ	13	BELL	$e^+e^- \to \Upsilon(4S)$
$<1.5 \times 10^{-4}$	90	[1] CHEN	07D	BELL	Repl. by LUTZ 13

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T28;LINKAGE=EP

$\Gamma(K^*(892)^+ \ell^+ \ell^-)/\Gamma_{\text{total}}$ Γ_{680}/Γ

NODE=S041RA2

Test for ΔB=1 weak neutral current. Allowed by higher-order electroweak interactions. NODE=S041RA2 NODE=S041RA2

VALUE (units 10^{-7})	CL%	DOCUMENT ID		TECN	COMMENT
10.1 ±1.1 OUR AVERAGE Error includes scale factor of 1.1.					
$9.24 \pm 0.93 \pm 0.67$		AAIJ	14M	LHCB	pp at 7, 8 TeV (OCCUR=2)
$14.0\ ^{+4.0}_{-3.7} \pm 0.9$		[1] AUBERT	09T	BABR	$e^+e^- \to \Upsilon(4S)$
$12.4\ ^{+2.3}_{-2.1} \pm 1.3$		[1] WEI	09A	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
11.6 ± 1.9		[2] AAIJ	12AH	LHCB	Repl. by AAIJ 14M
$7.3\ ^{+5.0}_{-4.2} \pm 2.1$		[1] AUBERT,B	06J	BABR	Repl. by AUBERT 09T
<22	90	[1] ISHIKAWA	03	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041RA2;LINKAGE=EP
[2] Measured in $B^+ \to K^*(892)^+ \mu^+ \mu^-$ decays. NODE=S041RA2;LINKAGE=AA

$\Gamma(K^*(892)^+ e^+ e^-)/\Gamma_{\text{total}}$ Γ_{681}/Γ

NODE=S041R81

Test for ΔB=1 weak neutral current. Allowed by higher-order electroweak interactions. NODE=S041R81 NODE=S041R81

VALUE (units 10^{-7})	CL%	DOCUMENT ID		TECN	COMMENT
$15.5^{+4.0}_{-3.1}$ OUR AVERAGE					
$13.8^{+4.7}_{-4.2} \pm 0.8$		[1] AUBERT	09T	BABR	$e^+e^- \to \Upsilon(4S)$
$17.3^{+5.0}_{-4.2} \pm 2.0$		[1] WEI	09A	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$7.5^{+7.6}_{-6.5} \pm 3.8$		[1] AUBERT,B	06J	BABR	Repl. by AUBERT 09T
$2.0^{+13.4}_{-8.7} \pm 2.8$		[1] AUBERT	03U	BABR	$e^+e^- \to \Upsilon(4S)$
< 46	90	[2] ISHIKAWA	03	BELL	$e^+e^- \to \Upsilon(4S)$
< 89	90	[1] ABE	02	BELL	Repl. by ISHIKAWA 03
< 95	90	[1] AUBERT	02L	BABR	$e^+e^- \to \Upsilon(4S)$
<6900	90	[3] ALBRECHT	91E	ARG	$e^+e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R81;LINKAGE=EP
[2] Assumes equal production of B^0 and B^+ at $\Upsilon(4S)$. The second error is a total of systematic uncertainties including model dependence. NODE=S041R81;LINKAGE=IS
[3] ALBRECHT 91E reports $< 6.3 \times 10^{-4}$ assuming the $\Upsilon(4S)$ decays 45% to $B^0\overline{B}^0$. We rescale to 50%. NODE=S041R81;LINKAGE=B2

$\Gamma(K^*(892)^+ \mu^+ \mu^-)/\Gamma_{\text{total}}$ Γ_{682}/Γ

NODE=S041R82

Test for ΔB=1 weak neutral current. Allowed by higher-order electroweak interactions. NODE=S041R82 NODE=S041R82

VALUE (units 10^{-7})	CL%	DOCUMENT ID		TECN	COMMENT
9.6 ± 1.0 OUR FIT					
9.6 ± 1.1 OUR AVERAGE					
$9.24 \pm 0.93 \pm 0.67$		[1] AAIJ	14M	LHCB	pp at 7, 8 TeV
$14.6\ ^{+7.9}_{-7.5} \pm 1.2$		[2] AUBERT	09T	BABR	$e^+e^- \to \Upsilon(4S)$
$11.1\ ^{+3.2}_{-2.7} \pm 1.0$		[2] WEI	09A	BELL	$e^+e^- \to \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

11.6 ± 1.9		AAIJ	12AH	LHCB	Repl. by AAIJ 14M
$9.7 {}^{+\ 9.4}_{-\ 6.9} \pm 1.4$		[2] AUBERT,B	06J	BABR	Repl. by AUBERT 09T
$30.7 {}^{+25.8}_{-17.8} \pm 4.2$		[2] AUBERT	03U	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
$6.5 {}^{+\ 6.9}_{-\ 5.3} {}^{+1.5}_{-1.6}$		[3] ISHIKAWA	03	BELL	Repl. by WEI 09A
< 39	90	[2] ABE	02	BELL	Repl. by ISHIKAWA 03
<170	90	[2] AUBERT	02L	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Uses B($B^+ \rightarrow J/\psi(1S) K^*(892)^+$) = $(1.431 \pm 0.027 \pm 0.090) \times 10^{-3}$ for normalization. NODE=S041R82;LINKAGE=A

[2] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041R82;LINKAGE=EP

[3] Assumes equal production of B^0 and B^+ at $\Upsilon(4S)$. The second error is a total of systematic uncertainties including model dependence. The 90% C.L. upper limit is 2.2×10^{-6}. NODE=S041R82;LINKAGE=IS

$\Gamma(K^*(892)^+ \mu^+ \mu^-)/\Gamma(J/\psi(1S) K^*(892)^+)$ $\Gamma_{682}/\Gamma_{321}$

NODE=S041T76
NODE=S041T76

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
0.67±0.08 OUR FIT				
0.67±0.22±0.04	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV

$\Gamma(K^*(892)^+ \nu\overline{\nu})/\Gamma_{total}$ Γ_{683}/Γ

NODE=S041T29

Test for $\Delta B = 1$ weak neutral current. Allowed by higher-order electroweak interaction. NODE=S041T29
NODE=S041T29

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<4.0 \times 10^{-5}$	90	[1] LUTZ	13	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<6.1 \times 10^{-5}$	90	[1] GRYGIER	17	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
$<6.4 \times 10^{-5}$	90	[1,2] LEES	13I	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
$<8 \times 10^{-5}$	90	AUBERT	08BC	BABR	Repl. by LEES 13I
$<1.4 \times 10^{-4}$	90	[1] CHEN	07D	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T29;LINKAGE=EP

[2] Also reported a limit $< 11.6 \times 10^{-5}$ at 90% CL obtained using a fully reconstructed hadronic B-tag evnets. NODE=S041T29;LINKAGE=LE

$\Gamma(K^+ \pi^+ \pi^- \mu^+ \mu^-)/\Gamma(\psi(2S) K^+)$ $\Gamma_{684}/\Gamma_{352}$

NODE=S041BA0
NODE=S041BA0

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
$6.95 {}^{+0.46}_{-0.43} \pm 0.34$	AAIJ	14AZ	LHCB	pp at 7, 8 TeV

$\Gamma(\phi K^+ \mu^+ \mu^-)/\Gamma(J/\psi(1S) \phi K^+)$ $\Gamma_{686}/\Gamma_{328}$

NODE=S041BA6
NODE=S041BA6

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
$1.58 {}^{+0.36}_{-0.32} {}^{+0.19}_{-0.07}$	AAIJ	14AZ	LHCB	pp at 7, 8 TeV

$\Gamma(\overline{\Lambda} p \nu\overline{\nu})/\Gamma_{total}$ Γ_{687}/Γ

NODE=S041P75
NODE=S041P75

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<3.0 \times 10^{-5}$	90	[1] LEES	19C	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Signal candidates are identified by first fully reconstructing B^+ in one of many possible exclusive decays to hadronic final states. NODE=S041P75;LINKAGE=A

$\Gamma(\pi^+ e^+ \mu^-)/\Gamma_{total}$ Γ_{688}/Γ

NODE=S041R53

Test of lepton family number conservation. NODE=S041R53
NODE=S041R53

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.0064	90	[1] WEIR	90B	MRK2	$e^+ e^-$ 29 GeV

[1] WEIR 90B assumes B^+ production cross section from LUND. NODE=S041R53;LINKAGE=A

$\Gamma(\pi^+ e^- \mu^+)/\Gamma_{total}$ Γ_{689}/Γ

NODE=S041R54

Test of lepton family number conservation. NODE=S041R54
NODE=S041R54

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.0064	90	[1] WEIR	90B	MRK2	$e^+ e^-$ 29 GeV

[1] WEIR 90B assumes B^+ production cross section from LUND. NODE=S041R54;LINKAGE=A

$\Gamma(\pi^+ e^\pm \mu^\mp)/\Gamma_{total}$ Γ_{690}/Γ

NODE=S041T21
NODE=S041T21

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.7 \times 10^{-7}$	90	[1] AUBERT	07AG	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041T21;LINKAGE=EP

$\Gamma(\pi^+ e^+ \tau^-)/\Gamma_{total}$ — Γ_{691}/Γ

NODE=S041T77

Test of lepton family number conservation.

NODE=S041T77
NODE=S041T77

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<74	90	[1] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.

NODE=S041T77;LINKAGE=LE

$\Gamma(\pi^+ e^- \tau^+)/\Gamma_{total}$ — Γ_{692}/Γ

NODE=S041T78

Test of lepton family number conservation.

NODE=S041T78
NODE=S041T78

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<20	90	[1] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.

NODE=S041T78;LINKAGE=LE

$\Gamma(\pi^+ e^\pm \tau^\mp)/\Gamma_{total}$ — Γ_{693}/Γ

NODE=S041T79

Test of lepton family number conservation.

NODE=S041T79
NODE=S041T79

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<75	90	[1,2] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes $B(B^+ \to h^+ \ell^+ \tau^-) = B(B^+ \to h^+ \ell^- \tau^+)$.

NODE=S041T79;LINKAGE=ES

[2] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.

NODE=S041T79;LINKAGE=LE

$\Gamma(\pi^+ \mu^+ \tau^-)/\Gamma_{total}$ — Γ_{694}/Γ

NODE=S041T80

Test of lepton family number conservation.

NODE=S041T80
NODE=S041T80

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<62	90	[1] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.

NODE=S041T80;LINKAGE=LE

$\Gamma(\pi^+ \mu^- \tau^+)/\Gamma_{total}$ — Γ_{695}/Γ

NODE=S041T81

Test of lepton family number conservation.

NODE=S041T81
NODE=S041T81

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<45	90	[1] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.

NODE=S041T81;LINKAGE=LE

$\Gamma(\pi^+ \mu^\pm \tau^\mp)/\Gamma_{total}$ — Γ_{696}/Γ

NODE=S041T82

Test of lepton family number conservation.

NODE=S041T82
NODE=S041T82

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<72	90	[1,2] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes $B(B^+ \to h^+ \ell^+ \tau^-) = B(B^+ \to h^+ \ell^- \tau^+)$.

NODE=S041T82;LINKAGE=ES

[2] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.

NODE=S041T82;LINKAGE=LE

$\Gamma(K^+ e^+ \mu^-)/\Gamma_{total}$ — Γ_{697}/Γ

NODE=S041R56

Test of lepton family number conservation.

NODE=S041R56
NODE=S041R56

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<7.0 \times 10^{-9}$	90	AAIJ	19AM	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<3.0 \times 10^{-8}$	90	CHOUDHURY	21	BELL	$e^+ e^- \to \Upsilon(4S)$
$<0.91 \times 10^{-7}$	90	[1] AUBERT,B	06J	BABR	$e^+ e^- \to \Upsilon(4S)$
$<8 \times 10^{-7}$	90	[1] AUBERT	02L	BABR	Repl. by AUBERT,B 06J
$<6.4 \times 10^{-3}$	90	[2] WEIR	90B	MRK2	$e^+ e^-$ 29 GeV

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R56;LINKAGE=EP

[2] WEIR 90B assumes B^+ production cross section from LUND.

NODE=S041R56;LINKAGE=A

$\Gamma(K^+ e^- \mu^+)/\Gamma_{total}$ — Γ_{698}/Γ

NODE=S041R57

Test of lepton family number conservation.

NODE=S041R57
NODE=S041R57

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<6.4 \times 10^{-9}$	90	AAIJ	19AM	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<8.5 \times 10^{-8}$	90	CHOUDHURY	21	BELL	$e^+ e^- \to \Upsilon(4S)$
$<1.3 \times 10^{-7}$	90	[1] AUBERT,B	06J	BABR	$e^+ e^- \to \Upsilon(4S)$
$<6.4 \times 10^{-3}$	90	[2] WEIR	90B	MRK2	$e^+ e^-$ 29 GeV

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R57;LINKAGE=EP

[2] WEIR 90B assumes B^+ production cross section from LUND.

NODE=S041R57;LINKAGE=A

$\Gamma(K^+ e^\pm \mu^\mp)/\Gamma_{total}$ Γ_{699}/Γ

NODE=S041T05
NODE=S041T05

VALUE (units 10^{-7})	CL%	DOCUMENT ID		TECN	COMMENT
<0.91	90	[1] AUBERT,B	06J	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T05;LINKAGE=EP

$\Gamma(K^+ e^+ \tau^-)/\Gamma_{total}$ Γ_{700}/Γ

NODE=S041T83

Test of lepton family number conservation.

NODE=S041T83
NODE=S041T83

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.53 \times 10^{-5}$	90	[1] WATANUKI	23	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<4.3 \times 10^{-5}$	90	[2] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Uses a fully reconstructed hadronic B^- decay as a tag on the recoil side.
[2] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.

NODE=S041T83;LINKAGE=A
NODE=S041T83;LINKAGE=LE

$\Gamma(K^+ e^- \tau^+)/\Gamma_{total}$ Γ_{701}/Γ

NODE=S041T84

Test of lepton family number conservation.

NODE=S041T84
NODE=S041T84

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.51 \times 10^{-5}$	90	[1] WATANUKI	23	BELL	$e^+ e^- \to \Upsilon(4S)$
$<1.5 \times 10^{-5}$	90	[2] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Uses a fully reconstructed hadronic B^- decay as a tag on the recoil side.
[2] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.

NODE=S041T84;LINKAGE=A
NODE=S041T84;LINKAGE=LE

$\Gamma(K^+ e^\pm \tau^\mp)/\Gamma_{total}$ Γ_{702}/Γ

NODE=S041T85

Test of lepton family number conservation.

NODE=S041T85
NODE=S041T85

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<30	90	[1,2] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes $B(B^+ \to h^+ \ell^+ \tau^-) = B(B^+ \to h^+ \ell^- \tau^+)$.
[2] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.

NODE=S041T85;LINKAGE=ES
NODE=S041T85;LINKAGE=LE

$\Gamma(K^+ \mu^+ \tau^-)/\Gamma_{total}$ Γ_{703}/Γ

NODE=S041T86

Test of lepton family number conservation.

NODE=S041T86
NODE=S041T86

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<2.45 \times 10^{-5}$	90	[1] WATANUKI	23	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<4.5 \times 10^{-5}$	90	[2] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Uses a fully reconstructed hadronic B^- decay as a tag on the recoil side.
[2] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.

NODE=S041T86;LINKAGE=A
NODE=S041T86;LINKAGE=LE

$\Gamma(K^+ \mu^- \tau^+)/\Gamma_{total}$ Γ_{704}/Γ

NODE=S041T87

Test of lepton family number conservation.

NODE=S041T87
NODE=S041T87

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<0.59 \times 10^{-5}$	90	[1] WATANUKI	23	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<3.9 \times 10^{-5}$	90	[2] AAIJ	20P	LHCB	pp at 7, 8, 13 TeV
$<2.8 \times 10^{-5}$	90	[3] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Uses a fully reconstructed hadronic B^- decay as a tag on the recoil side.
[2] Uses the $B^{*0}_{s2} \to B^+ K^-$ decays for kinematic constraints.
[3] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.

NODE=S041T87;LINKAGE=B
NODE=S041T87;LINKAGE=A
NODE=S041T87;LINKAGE=LE

$\Gamma(K^+ \mu^\pm \tau^\mp)/\Gamma_{total}$ Γ_{705}/Γ

NODE=S041T22

Test of lepton family number conservation.

NODE=S041T22
NODE=S041T22

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<48	90	[1,2] LEES	12P	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<77	90	[1] AUBERT	07AZ	BABR	Repl. by LEES 12P

[1] Uses a fully reconstructed hadronic B decay as a tag on the recoil side.
[2] Assumes $B(B^+ \to h^+ \ell^+ \tau^-) = B(B^+ \to h^+ \ell^- \tau^+)$.

NODE=S041T22;LINKAGE=AU
NODE=S041T22;LINKAGE=ES

$\Gamma(K^*(892)^+ e^+ \mu^-)/\Gamma_{total}$ Γ_{706}/Γ

NODE=S041T06
NODE=S041T06

VALUE (units 10^{-7})	CL%	DOCUMENT ID		TECN	COMMENT
<13	90	[1] AUBERT,B	06J	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T06;LINKAGE=EP

$\Gamma(K^*(892)^+ e^- \mu^+)/\Gamma_{total}$ Γ_{707}/Γ

NODE=S041T07
NODE=S041T07

VALUE (units 10^{-7})	CL%	DOCUMENT ID		TECN	COMMENT
<9.9	90	[1] AUBERT,B	06J	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041T07;LINKAGE=EP

$\Gamma(K^*(892)^+ e^\pm \mu^\mp)/\Gamma_{total}$ Γ_{708}/Γ

NODE=S041B74

Test of lepton family number conservation.

NODE=S041B74
NODE=S041B74

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.4 × 10^{-6}	90	[1] AUBERT,B	06J	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<7.9 × 10^{-6}	90	[1] AUBERT	02L	BABR	Repl. by AUBERT,B 06J

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B74;LINKAGE=EP

$\Gamma(\pi^- e^+ e^+)/\Gamma_{total}$ Γ_{709}/Γ

NODE=S041R58

Test of total lepton number conservation.

NODE=S041R58
NODE=S041R58

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<2.3 × 10^{-8}	90	[1] LEES	12J	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1.6 × 10^{-6}	90	[1] EDWARDS	02B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
<0.0039	90	[2] WEIR	90B	MRK2	$e^+ e^-$ 29 GeV

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R58;LINKAGE=EP

[2] WEIR 90B assumes B^+ production cross section from LUND.

NODE=S041R58;LINKAGE=A

$\Gamma(\pi^- \mu^+ \mu^+)/\Gamma_{total}$ Γ_{710}/Γ

NODE=S041R60

Test of total lepton number conservation.

NODE=S041R60
NODE=S041R60

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
< 4.0 × 10^{-9}	95	[1] AAIJ	14AC	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
< 1.3 × 10^{-8}	95	[2] AAIJ	12AD	LHCB	Repl. by AAIJ 14AC
< 4.4 × 10^{-8}	90	AAIJ	12C	LHCB	pp at 7 TeV
<10.7 × 10^{-8}	90	[3] LEES	12J	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
< 1.4 × 10^{-6}	90	[3] EDWARDS	02B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
< 9.1 × 10^{-3}	90	[4] WEIR	90B	MRK2	$e^+ e^-$ 29 GeV

[1] Uses $B^+ \rightarrow J/\psi K^+$, $J/\psi \rightarrow \mu^+ \mu^-$ mode for normalization. Obtains neutrino-mass-dependent upper limits in the range 0.4–4.0 × 10^{-9}. This limit is applicable for Majorana neutrino lifetime < 1 ps.

NODE=S041R60;LINKAGE=AI

[2] Uses $B^+ \rightarrow J/\psi K^+$, $J/\psi \rightarrow \mu^+ \mu^-$ mode for normalization. Obtains neutrino-mass-dependent upper limits in the range 0.4–1.0 × 10^{-8}.

NODE=S041R60;LINKAGE=AA

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R60;LINKAGE=EP

[4] WEIR 90B assumes B^+ production cross section from LUND.

NODE=S041R60;LINKAGE=A

$\Gamma(\pi^- e^+ \mu^+)/\Gamma_{total}$ Γ_{711}/Γ

NODE=S041R59

Test of total lepton number conservation.

NODE=S041R59
NODE=S041R59

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.5 × 10^{-7}	90	[1] LEES	14A	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1.3 × 10^{-6}	90	[1] EDWARDS	02B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
<0.0064	90	[2] WEIR	90B	MRK2	$e^+ e^-$ 29 GeV

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041R59;LINKAGE=EP

[2] WEIR 90B assumes B^+ production cross section from LUND.

NODE=S041R59;LINKAGE=A

$\Gamma(\rho^- e^+ e^+)/\Gamma_{total}$ Γ_{712}/Γ

NODE=S041B69

Test of total lepton number conservation.

NODE=S041B69
NODE=S041B69

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.17	90	[1] LEES	14A	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.6	90	[1] EDWARDS	02B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B69;LINKAGE=EP

$\Gamma(\rho^- \mu^+ \mu^+)/\Gamma_{total}$ Γ_{713}/Γ

NODE=S041B73

Test of total lepton number conservation.

NODE=S041B73
NODE=S041B73

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.42	90	LEES	14A	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<5.0	90	[1] EDWARDS	02B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B73;LINKAGE=EP

$\Gamma(\rho^- e^+ \mu^+)/\Gamma_{total}$ Γ_{714}/Γ

NODE=S041B72

Test of total lepton number conservation.

NODE=S041B72
NODE=S041B72

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.47	90	[1] LEES	14A	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<3.3	90	[1] EDWARDS	02B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B72;LINKAGE=EP

$\Gamma(K^- e^+ e^+)/\Gamma_{total}$ Γ_{715}/Γ

NODE=S041R61

Test of total lepton number conservation.

NODE=S041R61
NODE=S041R61

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<3.0 $\times 10^{-8}$	90	[1] LEES	12J	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1.0 $\times 10^{-6}$	90	[1] EDWARDS	02B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
<0.0039	90	[2] WEIR	90B	MRK2	$e^+ e^-$ 29 GeV

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

[2] WEIR 90B assumes B^+ production cross section from LUND.

NODE=S041R61;LINKAGE=EP
NODE=S041R61;LINKAGE=A

$\Gamma(K^- \mu^+ \mu^+)/\Gamma_{total}$ Γ_{716}/Γ

NODE=S041R63

Test of total lepton number conservation.

NODE=S041R63
NODE=S041R63

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<4.1 $\times 10^{-8}$	90	AAIJ	12C	LHCB	pp at 7 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<6.7 $\times 10^{-8}$	90	[1] LEES	12J	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
<1.8 $\times 10^{-6}$	90	[1] EDWARDS	02B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
<9.1 $\times 10^{-3}$	90	[2] WEIR	90B	MRK2	$e^+ e^-$ 29 GeV

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

[2] WEIR 90B assumes B^+ production cross section from LUND.

NODE=S041R63;LINKAGE=EP
NODE=S041R63;LINKAGE=A

$\Gamma(K^- e^+ \mu^+)/\Gamma_{total}$ Γ_{717}/Γ

NODE=S041R62

Test of total lepton number conservation.

NODE=S041R62
NODE=S041R62

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.6 $\times 10^{-7}$	90	[1] LEES	14A	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.0 $\times 10^{-6}$	90	[1] EDWARDS	02B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$
<0.0064	90	[2] WEIR	90B	MRK2	$e^+ e^-$ 29 GeV

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

[2] WEIR 90B assumes B^+ production cross section from LUND.

NODE=S041R62;LINKAGE=EP
NODE=S041R62;LINKAGE=A

$\Gamma(K^*(892)^- e^+ e^+)/\Gamma_{total}$ Γ_{718}/Γ

NODE=S041B68

Test of total lepton number conservation.

NODE=S041B68
NODE=S041B68

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.40	90	[1] LEES	14A	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.8	90	[1] EDWARDS	02B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B68;LINKAGE=EP

$\Gamma(K^*(892)^- \mu^+ \mu^+)/\Gamma_{total}$ Γ_{719}/Γ

NODE=S041B70

Test of total lepton number conservation.

NODE=S041B70
NODE=S041B70

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.59	90	[1] LEES	14A	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<8.3	90	[1] EDWARDS	02B	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B70;LINKAGE=EP

$\Gamma(K^*(892)^- e^+ \mu^+)/\Gamma_{total}$ — Γ_{720}/Γ

NODE=S041B71

Test of total lepton number conservation.

NODE=S041B71
NODE=S041B71

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<0.30	90	[1] LEES	14A	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<4.4	90	[1] EDWARDS	02B	CLE2	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

NODE=S041B71;LINKAGE=EP

$\Gamma(D_s^+ \mu^+ \mu^-)/\Gamma_{total}$ — Γ_{685}/Γ

NODE=S041D27
NODE=S041D27

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<2.4 \times 10^{-8}$	90	AAIJ	24F	LHCB	pp at 7, 8, 13 TeV

$\Gamma(D^- e^+ e^+)/\Gamma_{total}$ — Γ_{721}/Γ

NODE=S041BL1
NODE=S041BL1;CHECK LIMITS

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<2.6 \times 10^{-6}$	90	[1] LEES	14A	BABR	$e^+ e^- \to \Upsilon(4S)$
$<2.6 \times 10^{-6}$	90	[1,2] SEON	11	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^0 and B^+ from Upsilon(4S) decays.

NODE=S041BL1;LINKAGE=EP

[2] Uses $D^- \to K^+ \pi^- \pi^-$ mode and 3-body phase-space hypothesis for the signal decays.

NODE=S041BL1;LINKAGE=SE

$\Gamma(D^- e^+ \mu^+)/\Gamma_{total}$ — Γ_{722}/Γ

NODE=S041BL2
NODE=S041BL2

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.8 \times 10^{-6}$	90	[1,2] SEON	11	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<2.1 \times 10^{-6}$	90	[1] LEES	14A	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Assumes equal production of B^0 and B^+ from Upsilon(4S) decays.

NODE=S041BL2;LINKAGE=EP

[2] Uses $D^- \to K^+ \pi^- \pi^-$ mode and 3-body phase-space hypothesis for the signal decays.

NODE=S041BL2;LINKAGE=SE

$\Gamma(D^- \mu^+ \mu^+)/\Gamma_{total}$ — Γ_{723}/Γ

NODE=S041BL3
NODE=S041BL3

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$< 6.9 \times 10^{-7}$	95	[1] AAIJ	12AD	LHCB	pp at 7 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<17 \times 10^{-7}$	90	[2] LEES	14A	BABR	$e^+ e^- \to \Upsilon(4S)$
$< 1.1 \times 10^{-6}$	90	[2,3] SEON	11	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Uses $B^+ \to \psi(2S) K^+$, $\psi(2S) \to J/\psi \pi^+ \pi^-$ mode for normalization.

NODE=S041BL3;LINKAGE=AA

[2] Assumes equal production of B^0 and B^+ from Upsilon(4S) decays.

NODE=S041BL3;LINKAGE=EP

[3] Uses $D^- \to K^+ \pi^- \pi^-$ mode and 3-body phase-space hypothesis for the signal decays.

NODE=S041BL3;LINKAGE=SE

$\Gamma(D^{*-} \mu^+ \mu^+)/\Gamma_{total}$ — Γ_{724}/Γ

NODE=S041BL4
NODE=S041BL4

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<2.4 \times 10^{-6}$	95	[1] AAIJ	12AD	LHCB	pp at 7 TeV

[1] Uses $B^+ \to \psi(2S) K^+$, $\psi(2S) \to J/\psi \pi^+ \pi^-$ mode for normalization.

NODE=S041BL4;LINKAGE=AA

$\Gamma(D_s^- \mu^+ \mu^+)/\Gamma_{total}$ — Γ_{725}/Γ

NODE=S041BL5
NODE=S041BL5

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<5.8 \times 10^{-7}$	95	[1] AAIJ	12AD	LHCB	pp at 7 TeV

[1] Uses $B^+ \to \psi(2S) K^+$, $\psi(2S) \to J/\psi \pi^+ \pi^-$ mode for normalization. Obtains neutrino-mass-dependent upper limits in the range 1.5–8.0 $\times 10^{-7}$.

NODE=S041BL5;LINKAGE=AA

$\Gamma(\overline{D}^0 \pi^- \mu^+ \mu^+)/\Gamma_{total}$ — Γ_{726}/Γ

NODE=S041BL6
NODE=S041BL6

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.5 \times 10^{-6}$	95	[1] AAIJ	12AD	LHCB	pp at 7 TeV

[1] Uses $B^+ \to \psi(2S) K^+$, $\psi(2S) \to J/\psi \pi^+ \pi^-$ mode for normalization. Obtains neutrino-mass-dependent upper limits in the range 0.3–1.5 $\times 10^{-6}$.

NODE=S041BL6;LINKAGE=AA

$\Gamma(\Lambda^0 \mu^+)/\Gamma_{total}$ — Γ_{727}/Γ

NODE=S041T66
NODE=S041T66

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<6 \times 10^{-8}$	90	[1,2] DEL-AMO-SA...	11K	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] DEL-AMO-SANCHEZ 11K reports $< 6.1 \times 10^{-8}$ from a measurement of $[\Gamma(B^+ \to \Lambda^0 \mu^+)/\Gamma_{total}] \times [B(\Lambda \to p \pi^-)]$ assuming $B(\Lambda \to p \pi^-) = (63.9 \pm 0.5) \times 10^{-2}$, which we rescale to our best value $B(\Lambda \to p \pi^-) = 64.1 \times 10^{-2}$.

NODE=S041T66;LINKAGE=DE

[2] Uses $B(\Upsilon(4S) \to B^0 \overline{B}^0) = (51.6 \pm 0.6)\%$ and $B(\Upsilon(4S) \to B^+ B^-) = (48.4 \pm 0.6)\%$.

NODE=S041T66;LINKAGE=NP

$\Gamma(\Lambda^0 e^+)/\Gamma_{total}$ — Γ_{728}/Γ

NODE=S041T67

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
<3.2 × 10^−8^	90	[1,2] DEL-AMO-SA..11K	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] DEL-AMO-SANCHEZ 11K reports $< 3.2 \times 10^{-8}$ from a measurement of $[\Gamma(B^+ \rightarrow \Lambda^0 e^+)/\Gamma_{total}] \times [B(\Lambda \rightarrow p\pi^-)]$ assuming $B(\Lambda \rightarrow p\pi^-) = (63.9 \pm 0.5) \times 10^{-2}$, which we rescale to our best value $B(\Lambda \rightarrow p\pi^-) = 64.1 \times 10^{-2}$. NODE=S041T67;LINKAGE=DE

[2] Uses $B(\Upsilon(4S) \rightarrow B^0 \overline{B}^0) = (51.6 \pm 0.6)\%$ and $B(\Upsilon(4S) \rightarrow B^+ B^-) = (48.4 \pm 0.6)\%$. NODE=S041T67;LINKAGE=NP

$\Gamma(\overline{\Lambda}^0 \mu^+)/\Gamma_{total}$ — Γ_{729}/Γ

NODE=S041T68

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
<6 × 10^−8^	90	[1,2] DEL-AMO-SA..11K	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] DEL-AMO-SANCHEZ 11K reports $< 6.2 \times 10^{-8}$ from a measurement of $[\Gamma(B^+ \rightarrow \overline{\Lambda}^0 \mu^+)/\Gamma_{total}] \times [B(\Lambda \rightarrow p\pi^-)]$ assuming $B(\Lambda \rightarrow p\pi^-) = (63.9 \pm 0.5) \times 10^{-2}$, which we rescale to our best value $B(\Lambda \rightarrow p\pi^-) = 64.1 \times 10^{-2}$. NODE=S041T68;LINKAGE=DE

[2] Uses $B(\Upsilon(4S) \rightarrow B^0 \overline{B}^0) = (51.6 \pm 0.6)\%$ and $B(\Upsilon(4S) \rightarrow B^+ B^-) = (48.4 \pm 0.6)\%$. NODE=S041T68;LINKAGE=NP

$\Gamma(\overline{\Lambda}^0 e^+)/\Gamma_{total}$ — Γ_{730}/Γ

NODE=S041T69

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
<8 × 10^−8^	90	[1,2] DEL-AMO-SA..11K	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] DEL-AMO-SANCHEZ 11K reports $< 8.1 \times 10^{-8}$ from a measurement of $[\Gamma(B^+ \rightarrow \overline{\Lambda}^0 e^+)/\Gamma_{total}] \times [B(\Lambda \rightarrow p\pi^-)]$ assuming $B(\Lambda \rightarrow p\pi^-) = (63.9 \pm 0.5) \times 10^{-2}$, which we rescale to our best value $B(\Lambda \rightarrow p\pi^-) = 64.1 \times 10^{-2}$. NODE=S041T69;LINKAGE=DE

[2] Uses $B(\Upsilon(4S) \rightarrow B^0 \overline{B}^0) = (51.6 \pm 0.6)\%$ and $B(\Upsilon(4S) \rightarrow B^+ B^-) = (48.4 \pm 0.6)\%$. NODE=S041T69;LINKAGE=NP

$\Gamma(\Xi_c^0 \Lambda_c^+)/\Gamma(\overline{\Xi}_c^0 \Lambda_c^+)$ — $\Gamma_{657}/\Gamma_{656}$

NODE=S041D26

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
<2.7 × 10^−2^	95	[1] GU 24	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] The signals are reconstructed in decay chains: $\Xi_c^0 \rightarrow \Xi^- \pi^+$, $\Lambda^0 K^- \pi^+$, $p K^- K^- \pi^+$, and $\Lambda_c^- \rightarrow \overline{p} K_S^0$, $\overline{p} K^+ \pi^-$. NODE=S041D26;LINKAGE=A

POLARIZATION IN B^+ DECAY

NODE=S041230

In decays involving two vector mesons, one can distinguish among the states in which meson polarizations are both longitudinal (L) or both are transverse and parallel ($\parallel$) or perpendicular ($\perp$) to each other with the parameters Γ_L/Γ, $\Gamma_\perp/\Gamma$, and the relative phases $\phi_\parallel$ and $\phi_\perp$. See the definitions in the note on "Polarization in B Decays" review in the B^0 Particle Listings. NODE=S041230

Γ_L/Γ in $B^+ \rightarrow \overline{D}^{*0} \rho^+$

NODE=S041P1

VALUE	DOCUMENT ID	TECN	COMMENT
0.892±0.018±0.016	CSORNA 03	CLE2	$e^+ e^- \rightarrow \Upsilon(4S)$

Γ_L/Γ in $B^+ \rightarrow \overline{D}^{*0} K^{*+}$

NODE=S041GL1

VALUE	DOCUMENT ID	TECN	COMMENT
0.86±0.06±0.03	AUBERT 04K	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

Γ_L/Γ in $B^+ \rightarrow \overline{D}^{*0} \ell^+ \nu_\ell$

NODE=S041A87

VALUE	DOCUMENT ID	TECN	COMMENT
0.514±0.018±0.005	PRIM 23	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

Γ_L/Γ in $B^+ \rightarrow \overline{D}^{*0} e^+ \nu_e$

NODE=S041A88

VALUE	DOCUMENT ID	TECN	COMMENT
0.505±0.027±0.006	PRIM 23	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

Γ_L/Γ in $B^+ \rightarrow \overline{D}^{*0} \mu^+ \nu_\mu$

NODE=S041A89

VALUE	DOCUMENT ID	TECN	COMMENT
0.522±0.025±0.007	PRIM 23	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

$\Delta(\Gamma_L/\Gamma)$ in $B^+ \rightarrow \overline{D}^{*0} \ell^+ \nu_\ell$

NODE=S041A90

$\Delta(\Gamma_L/\Gamma) = (\Gamma_L/\Gamma)^\mu - (\Gamma_L/\Gamma)^e$ NODE=S041A90

NODE=S041A90

VALUE	DOCUMENT ID	TECN	COMMENT
0.017±0.037±0.009	PRIM 23	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$

Γ_L/Γ in $B^+ \to J/\psi K^{*+}$

NODE=S041GL2

VALUE	DOCUMENT ID		TECN	COMMENT
0.604±0.015±0.018	ITOH	05	BELL	$e^+e^- \to \Upsilon(4S)$

$\Gamma_\perp/\Gamma$ in $B^+ \to J/\psi K^{*+}$

NODE=S041GP2

VALUE	DOCUMENT ID		TECN	COMMENT
0.180±0.014±0.010	ITOH	05	BELL	$e^+e^- \to \Upsilon(4S)$

Γ_L/Γ in $B^+ \to \omega K^{*+}$

NODE=S041P11

VALUE	DOCUMENT ID		TECN	COMMENT
0.41±0.18±0.05	AUBERT	09H	BABR	$e^+e^- \to \Upsilon(4S)$

Γ_L/Γ in $B^+ \to \omega K_2^*(1430)^+$

NODE=S041P12

VALUE	DOCUMENT ID		TECN	COMMENT
0.56±0.10±0.04	AUBERT	09H	BABR	$e^+e^- \to \Upsilon(4S)$

Γ_L/Γ in $B^+ \to K^{*+}\overline{K}^{*0}$

NODE=S041P05

VALUE	DOCUMENT ID		TECN	COMMENT
$0.82^{+0.15}_{-0.21}$ OUR AVERAGE				
1.06±0.30±0.14	[1] GOH	15	BELL	$e^+e^- \to \Upsilon(4S)$
$0.75^{+0.16}_{-0.26}\pm0.03$	[2,3] AUBERT	09F	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Signal significance 2.7 standard deviations. NODE=S041P05;LINKAGE=B

[2] Signal significance 3.7 standard deviations. NODE=S041P05;LINKAGE=A

[3] Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$. NODE=S041P05;LINKAGE=EP

Γ_L/Γ in $B^+ \to \phi K^*(892)^+$

NODE=S041P3

VALUE	DOCUMENT ID		TECN	COMMENT
0.50±0.05 OUR AVERAGE				
0.49±0.05±0.03	AUBERT	07BA	BABR	$e^+e^- \to \Upsilon(4S)$
0.52±0.08±0.03	CHEN	05A	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.46±0.12±0.03	AUBERT	03V	BABR	Repl. by AUBERT 07BA

$\Gamma_\perp/\Gamma$ in $B^+ \to \phi K^{*+}$

NODE=S041Q58

VALUE	DOCUMENT ID		TECN	COMMENT
0.20±0.05 OUR AVERAGE				
0.21±0.05±0.02	AUBERT	07BA	BABR	$e^+e^- \to \Upsilon(4S)$
0.19±0.08±0.02	CHEN	05A	BELL	$e^+e^- \to \Upsilon(4S)$

$\phi_\parallel$ in $B^+ \to \phi K^{*+}$

NODE=S041Q59

VALUE (°)	DOCUMENT ID		TECN	COMMENT
2.34±0.18 OUR AVERAGE				
2.47±0.20±0.07	AUBERT	07BA	BABR	$e^+e^- \to \Upsilon(4S)$
2.10±0.28±0.04	CHEN	05A	BELL	$e^+e^- \to \Upsilon(4S)$

$\phi_\perp$ in $B^+ \to \phi K^{*+}$

NODE=S041Q60

VALUE (°)	DOCUMENT ID		TECN	COMMENT
2.58±0.17 OUR AVERAGE				
2.69±0.20±0.03	AUBERT	07BA	BABR	$e^+e^- \to \Upsilon(4S)$
2.31±0.30±0.07	CHEN	05A	BELL	$e^+e^- \to \Upsilon(4S)$

$\delta_0(B^+ \to \phi K^{*+})$

NODE=S041Q90

VALUE (rad)	DOCUMENT ID		TECN	COMMENT
3.07±0.18±0.06	AUBERT	07BA	BABR	$e^+e^- \to \Upsilon(4S)$

$A^0_{CP}(B^+ \to \phi K^{*+})$

NODE=S041Q91

VALUE	DOCUMENT ID		TECN	COMMENT
0.17±0.11±0.02	AUBERT	07BA	BABR	$e^+e^- \to \Upsilon(4S)$

$A^\perp_{CP}(B^+ \to \phi K^{*+})$

NODE=S041Q92

VALUE	DOCUMENT ID		TECN	COMMENT
0.22±0.24±0.08	AUBERT	07BA	BABR	$e^+e^- \to \Upsilon(4S)$

$\Delta\phi_\parallel(B^+ \to \phi K^{*+})$

NODE=S041Q93

VALUE (rad)	DOCUMENT ID		TECN	COMMENT
0.07±0.20±0.05	AUBERT	07BA	BABR	$e^+e^- \to \Upsilon(4S)$

$\Delta\phi_{\perp}(B^+ \to \phi K^{*+})$
NODE=S041Q94

VALUE (rad)	DOCUMENT ID		TECN	COMMENT
0.19±0.20±0.07	AUBERT	07BA	BABR	$e^+e^- \to \Upsilon(4S)$

$\Delta\delta_0(B^+ \to \phi K^{*+})$
NODE=S041Q95

VALUE (rad)	DOCUMENT ID		TECN	COMMENT
0.20±0.18±0.03	AUBERT	07BA	BABR	$e^+e^- \to \Upsilon(4S)$

Γ_L/Γ in $B^+ \to \phi K_1(1270)^+$
NODE=S041Q98

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.46^{+0.12}_{-0.13}{}^{+0.06}_{-0.07}}$	AUBERT	08BI	BABR	$e^+e^- \to \Upsilon(4S)$

Γ_L/Γ in $B^+ \to \phi K_2^*(1430)^+$
NODE=S041Q99

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.80^{+0.09}_{-0.10}\pm0.03}$	AUBERT	08BI	BABR	$e^+e^- \to \Upsilon(4S)$

$\delta_0(B^+ \to \phi K_2^*(1430)^+)$
NODE=S041P08

VALUE (rad)	DOCUMENT ID		TECN	COMMENT
3.59±0.19±0.12	AUBERT	08BI	BABR	$e^+e^- \to \Upsilon(4S)$

$\Delta\delta_0(B^+ \to \phi K_2^*(1430)^+)$
NODE=S041P09

VALUE (rad)	DOCUMENT ID		TECN	COMMENT
−0.05±0.19±0.06	AUBERT	08BI	BABR	$e^+e^- \to \Upsilon(4S)$

Γ_L/Γ in $B^+ \to \rho^0 K^*(892)^+$
NODE=S041P4

VALUE	DOCUMENT ID		TECN	COMMENT
0.78±0.12±0.03	DEL-AMO-SA..11D		BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.96^{+0.04}_{-0.15}\pm0.04$	AUBERT	03V	BABR	Repl. by DEL-AMO-SANCHEZ 11D

$\Gamma_L/\Gamma(B^+ \to K^*(892)^0\rho^+)$
NODE=S041P06

VALUE	DOCUMENT ID		TECN	COMMENT
0.48±0.08 OUR AVERAGE				
0.52±0.10±0.04	AUBERT,B	06G	BABR	$e^+e^- \to \Upsilon(4S)$
$0.43\pm0.11^{+0.05}_{-0.02}$	ZHANG	05D	BELL	$e^+e^- \to \Upsilon(4S)$

Γ_L/Γ in $B^+ \to \mu^+\mu^- K^*(892)^+$ $(1.0 < q^2 < 8.68\ GeV^2/c^4)$
NODE=S041A39

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.60^{+0.31}_{-0.25}\pm0.13}$	[1] SIRUNYAN	21AC	CMS	pp at 8 TeV

[1] SIRUNYAN 21AC measurement is performed in $1.0 < q^2 < 8.68$ GeV^2/c^4. Reports also measurements in several other q^2 intervals.
NODE=S041A39;LINKAGE=A

Γ_L/Γ in $B^+ \to \mu^+\mu^- K^*(892)^+$ $(1.1 < q^2 < 6.0\ GeV^2/c^4)$
NODE=S041A49

VALUE	DOCUMENT ID		TECN	COMMENT
0.59±0.09±0.03	[1] AAIJ	21J	LHCB	pp at 7, 8, 13 TeV

[1] The full set of CP-averaged angular observables is measured as a function of the q^2. The measured Γ_L is related to the polarisation of the $K^*(892)^+$.
NODE=S041A49;LINKAGE=A

Γ_L/Γ in $B^+ \to \mu^+\mu^- K^*(892)^+$ $(10.09 < q^2 < 12.86\ GeV^2/c^4)$
NODE=S041A40

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.88^{+0.10}_{-0.13}\pm0.05}$	[1] SIRUNYAN	21AC	CMS	pp at 8 TeV

[1] SIRUNYAN 21AC measurement is performed in $10.09 < q^2 < 12.86$ GeV^2/c^4. Reports also measurements in several other q^2 intervals.
NODE=S041A40;LINKAGE=A

Γ_L/Γ in $B^+ \to \mu^+\mu^- K^*(892)^+$ $(14.18 < q^2 < 19.0\ GeV^2/c^4)$
NODE=S041A41

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.55^{+0.13}_{-0.10}\pm0.06}$	[1] SIRUNYAN	21AC	CMS	pp at 8 TeV

[1] SIRUNYAN 21AC measurement is performed in $14.18 < q^2 < 19.0$ GeV^2/c^4. Reports also measurements in several other q^2 intervals.
NODE=S041A41;LINKAGE=A

Γ_L/Γ in $B^+ \to \mu^+\mu^- K^*(892)^+$ ($15.0 < q^2 < 19.0$ GeV^2/c^4)

NODE=S041A50

VALUE	DOCUMENT ID		TECN	COMMENT
$0.40^{+0.13}_{-0.11}\pm0.03$	[1] AAIJ	21J	LHCB	pp at 7, 8, 13 TeV

[1] The full set of CP-averaged angular observables is measured as a function of the q^2. The measured Γ_L is related to the polarisation of the $K^*(892)^+$.

NODE=S041A50;LINKAGE=A

Γ_L/Γ in $B^+ \to \rho^+\rho^0$

NODE=S041P2

VALUE	DOCUMENT ID		TECN	COMMENT
0.950 ± 0.016 OUR AVERAGE				
$0.950\pm0.015\pm0.006$	AUBERT	09G	BABR	$e^+e^- \to \Upsilon(4S)$
$0.948\pm0.106\pm0.021$	ZHANG	03B	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.905\pm0.042^{+0.023}_{-0.027}$	AUBERT,BE	06G	BABR	Repl. by AUBERT 09G
$0.97\ ^{+0.03}_{-0.07}\ \pm0.04$	AUBERT	03V	BABR	Repl. by AUBERT,BE 06G

Γ_L/Γ in $B^+ \to \omega\rho^+$

NODE=S041P5

VALUE	DOCUMENT ID		TECN	COMMENT
$0.90\pm0.05\pm0.03$	AUBERT	09H	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.82\pm0.11\pm0.02$	AUBERT,B	06T	BABR	Repl. by AUBERT 09H
$0.88^{+0.12}_{-0.15}\pm0.03$	AUBERT	05O	BABR	Repl. by AUBERT,B 06T

Γ_L/Γ in $B^+ \to p\overline{p}K^*(892)^+$

NODE=S041P07

VALUE	DOCUMENT ID		TECN	COMMENT
$0.32\pm0.17\pm0.09$	CHEN	08C	BELL	$e^+e^- \to \Upsilon(4S)$

CP VIOLATION

NODE=S041220

A_{CP} is defined as

$$\frac{B(B^- \to \overline{f}) - B(B^+ \to f)}{B(B^- \to \overline{f}) + B(B^+ \to f)},$$

the *CP*-violation charge asymmetry of exclusive B^- and B^+ decay.

$A_{CP}(B^+ \to J/\psi(1S)K^+)$

NODE=S041AX1

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
$1.8\pm\ 3.0$ OUR AVERAGE	Error includes scale factor of 1.5. See the ideogram below.			
$0.9\pm\ 2.7\pm\ 0.7$	AAIJ	17AP	LHCB	pp at 7, 8 TeV
$5.9\pm\ 3.6\pm\ 0.7$	ABAZOV	13M	D0	$p\overline{p}$ at 1.96 TeV
$-\ 7.6\pm\ 5.0\pm\ 2.2$	SAKAI	10	BELL	$e^+e^- \to \Upsilon(4S)$
$90\ \pm70\ \pm20$	[1] WEI	08	BELL	$e^+e^- \to \Upsilon(4S)$
$30\ \pm14\ \pm10$	[2] AUBERT	05J	BABR	$e^+e^- \to \Upsilon(4S)$
$18\ \pm43\ \pm\ 4$	[3] BONVICINI	00	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$7.5\pm\ 6.1\pm\ 3.0$	[4] ABAZOV	08O	D0	Repl. by ABAZOV 13M
$30\ \pm15\ \pm\ 6$	AUBERT	04P	BABR	Repl. by AUBERT 05J
$-26\ \pm22\ \pm17$	ABE	03B	BELL	Repl. by SAKAI 10
$3\ \pm30\ \pm\ 4$	AUBERT	02F	BABR	Repl. by AUBERT 04P

[1] Uses $B^+ \to J/\psi K^+$, where $J/\psi \to p\overline{p}$.

NODE=S041AX1;LINKAGE=WE

[2] The result reported corresponds to $-A_{CP}$.

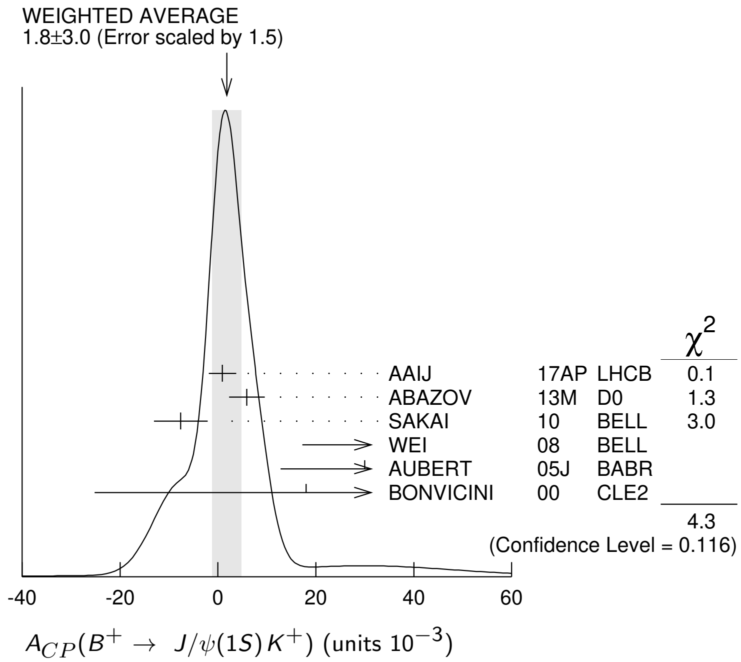
NODE=S041AX1;LINKAGE=AB

[3] A +0.3% correction is applied due to a slightly higher reconstruction efficiency for the positive kaons.

NODE=S041AX1;LINKAGE=A

[4] Uses $J/\psi \to \mu^+\mu^-$ decay.

NODE=S041AX1;LINKAGE=AZ



$A_{CP}(B^+ \to J/\psi(1S)\pi^+)$

NODE=S041AX9
NODE=S041AX9

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
1.5 ± 0.5 OUR AVERAGE			
[$(1.8 \pm 1.2) \times 10^{-2}$ OUR 2025 AVERAGE Scale factor = 1.3]			
1.51± 0.50±0.08	[1] AAIJ 25I	LHCB	pp at 7, 8, 13 TeV
− 4.2 ± 4.4 ±0.9	ABAZOV 13M	D0	$p\overline{p}$ at 1.96 TeV
12.3 ± 8.5 ±0.4	AUBERT 04P	BABR	$e^+e^- \to \Upsilon(4S)$
− 2.3 ±16.4 ±1.5	ABE 03B	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
1.91± 0.89±0.16	[1] AAIJ 17O	LHCB	Repl. by AAIJ 25I
0.5 ± 2.7 ±1.1	[2] AAIJ 12AC	LHCB	Repl. by AAIJ 17O
− 9 ± 8 ±3	[3] ABAZOV 08O	D0	Repl. by ABAZOV 13M
1 ±22 ±1	AUBERT 02F	BABR	Repl. by AUBERT 04P

NEW

[1] Obtained by using LHCb measurement of $A_{CP}(B^+ \to J/\psi K^+) = (0.09 \pm 0.27 \pm 0.07) \times 10^{-2}$ of AAIJ 17AP. NODE=S041AX9;LINKAGE=A

[2] Uses $A_{CP}(B^+ \to J/\psi K^+) = 0.001 \pm 0.007$ to extract production asymmetry. NODE=S041AX9;LINKAGE=AA

[3] Uses $J/\psi \to \mu^+\mu^-$ decay. NODE=S041AX9;LINKAGE=AZ

$A_{CP}(B^+ \to J/\psi\rho^+)$

NODE=S041AC5
NODE=S041AC5

VALUE	DOCUMENT ID	TECN	COMMENT
−0.05 ±0.05 OUR AVERAGE			
$-0.045^{+0.056}_{-0.057}\pm0.008$	AAIJ 19O	LHCB	pp at 7 and 8 TeV
−0.11 ±0.12 ±0.08	AUBERT 07AC	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to J/\psi K^*(892)^+)$

NODE=S041AW1
NODE=S041AW1

VALUE	DOCUMENT ID	TECN	COMMENT
−0.048±0.029±0.016	[1] AUBERT 05J	BABR	$e^+e^- \to \Upsilon(4S)$

[1] The result reported corresponds to $-A_{CP}$. NODE=S041AW1;LINKAGE=AB

$A_{CP}(B^+ \to \eta_c K^+)$

NODE=S041ABE
NODE=S041ABE

VALUE	DOCUMENT ID	TECN	COMMENT
−0.05 ±0.05 OUR AVERAGE Error includes scale factor of 1.5. [0.01 ± 0.07 OUR 2025 AVERAGE Scale factor = 2.2]			
−0.027±0.034±0.004	[1] AAIJ 14AF	LHCB	pp at 7, 8 TeV
−0.16 ±0.08 ±0.02	[1] WEI 08	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.046±0.057±0.007	[1] AAIJ 13AU	LHCB	Repl. by AAIJ 14AF

NEW

[1] Uses $B^+ \to \eta_c K^+$, where $\eta_c \to p\overline{p}$. NODE=S041ABE;LINKAGE=WE

$A_{CP}(B^+ \to \psi(2S)\pi^+)$

NODE=S041AZ2

VALUE		DOCUMENT ID		TECN	COMMENT
0.03 ±0.06 OUR AVERAGE					
0.048±0.090±0.011	1	AAIJ	12AC	LHCB	pp at 7 TeV
0.022±0.085±0.016		BHARDWAJ	08	BELL	$e^+e^- \to \Upsilon(4S)$

NODE=S041AZ2

[1] Uses $A_{CP}(B^+ \to J/\psi K^+) = 0.001 \pm 0.007$ to extract production asymmetry. NODE=S041AZ2;LINKAGE=AA

$A_{CP}(B^+ \to \psi(2S)K^+)$

NODE=S041AX2

VALUE		DOCUMENT ID		TECN	COMMENT
$-0.079\pm0.059\pm0.004$	1	AAIJ	14AF	LHCB	pp at 7, 8 TeV
$0.024\pm0.014\pm0.008$	2	AAIJ	12AC	LHCB	pp at 7 TeV
$0.052\pm0.059\pm0.020$		AUBERT	05J	BABR	$e^+e^- \to \Upsilon(4S)$
$-0.042\pm0.020\pm0.017$		ABE	03B	BELL	$e^+e^- \to \Upsilon(4S)$
$0.02\ \pm0.091\pm0.01$	3	BONVICINI	00	CLE2	$e^+e^- \to \Upsilon(4S)$

NODE=S041AX2

0.004±0.020 OUR AVERAGE Error includes scale factor of 1.5. See the ideogram below. [0.012 ± 0.020 OUR 2025 AVERAGE Scale factor = 1.5] NEW

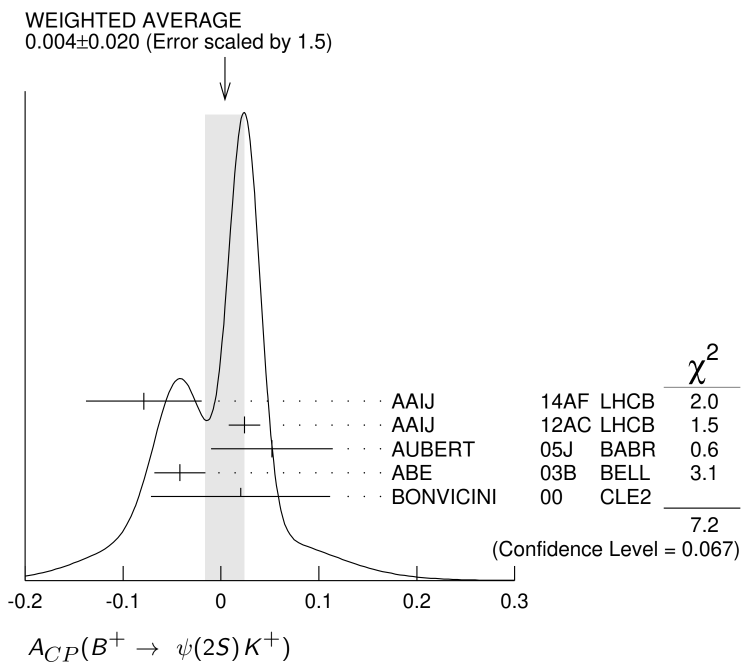
• • • We do not use the following data for averages, fits, limits, etc. • • •

$-0.002\pm0.123\pm0.012$	1,2	AAIJ	13AU	LHCB	Repl. by AAIJ 14AF

[1] Uses $\psi(2S) \to p\overline{p}$ decays. NODE=S041AX2;LINKAGE=AI

[2] Uses $A_{CP}(B^+ \to J/\psi K^+) = 0.001 \pm 0.007$ to extract production asymmetry. NODE=S041AX2;LINKAGE=AA

[3] A +0.3% correction is applied due to a slightly higher reconstruction efficiency for the positive kaons. NODE=S041AX2;LINKAGE=A



$A_{CP}(B^+ \to \psi(2S)K^*(892)^+)$

NODE=S041AW2

VALUE		DOCUMENT ID		TECN	COMMENT
0.077±0.207±0.051	1	AUBERT	05J	BABR	$e^+e^- \to \Upsilon(4S)$

NODE=S041AW2

[1] The result reported corresponds to $-A_{CP}$. NODE=S041AW2;LINKAGE=AB

$A_{CP}(B^+ \to \chi_{c1}(1P)\pi^+)$

NODE=S041AW5

VALUE	DOCUMENT ID		TECN	COMMENT
0.07±0.18±0.02	KUMAR	06	BELL	$e^+e^- \to \Upsilon(4S)$

NODE=S041AW5

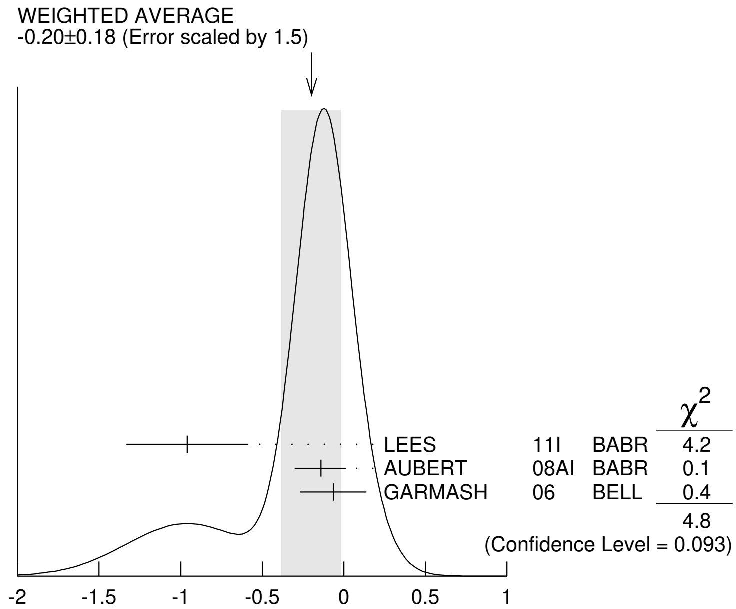
$A_{CP}(B^+ \to \chi_{c0}K^+)$

NODE=S041CQ9

VALUE	DOCUMENT ID		TECN	COMMENT
$-0.96\ \pm0.37\pm0.04$	LEES	11I	BABR	$e^+e^- \to \Upsilon(4S)$
$-0.14\ \pm0.15^{+0.03}_{-0.06}$	AUBERT	08AI	BABR	$e^+e^- \to \Upsilon(4S)$
$-0.065\pm0.20^{+0.035}_{-0.024}$	GARMASH	06	BELL	$e^+e^- \to \Upsilon(4S)$

NODE=S041CQ9

−0.20 ±0.18 OUR AVERAGE Error includes scale factor of 1.5. See the ideogram below.



$A_{CP}(B^+ \to \chi_{c0} K^+)$

$A_{CP}(B^+ \to \chi_{c1} K^+)$

NODE=S041AW3

VALUE	DOCUMENT ID		TECN	COMMENT
−0.009±0.033 OUR AVERAGE				
−0.01 ±0.03 ±0.02	KUMAR	06	BELL	$e^+e^- \to \Upsilon(4S)$
−0.003±0.076±0.017	[1] AUBERT	05J	BABR	$e^+e^- \to \Upsilon(4S)$

[1] The result reported corresponds to $-A_{CP}$. NODE=S041AW3;LINKAGE=AB

$A_{CP}(B^+ \to \chi_{c1} K^*(892)^+)$

NODE=S041AW4

VALUE	DOCUMENT ID		TECN	COMMENT
0.471±0.378±0.268	[1] AUBERT	05J	BABR	$e^+e^- \to \Upsilon(4S)$

[1] The result reported corresponds to $-A_{CP}$. NODE=S041AW4;LINKAGE=AB

$A_{CP}(B^+ \to D^0 \ell^+ \nu_\ell)$

NODE=S041A02

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
−0.14±0.14±0.14	[1] ABAZOV	17A	D0	$p\overline{p}$ at 1.96 TeV

[1] Uses $D^0 \to K^-\pi^+$ decays and f(B^+) = 0.56 ± 0.01 from 10.4 fb^{-1} of Run II data. NODE=S041A02;LINKAGE=A

$A_{CP}(B^+ \to \overline{D}^0 \pi^+)$

NODE=S041AD2

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
−3.2±3.5 OUR AVERAGE				
−5 ±4 ± 2	ADACHI	24I	BELL	$e^+e^- \to \Upsilon(4S)$
1.9±3.6± 5.7	BLOOMFIELD	22	BELL	$e^+e^- \to \Upsilon(4S)$
−6 ±5 ±10	[1] AAIJ	13AE	LHCB	pp at 7 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−8 ±8	ABE	06	BELL	Repl. by ADACHI 24I

[1] Uses $B^\pm \to [K^\pm\pi^\mp\pi^+\pi^-]_D h^\pm$ mode. NODE=S041AD2;LINKAGE=AJ

$A_{CP}(B^+ \to D_{CP(+1)} \pi^+)$

NODE=S041AD3

VALUE	DOCUMENT ID		TECN	COMMENT
−0.0088±0.0024 OUR AVERAGE				
−0.02 ±0.014 ±0.002	ADACHI	24I	BELL	$e^+e^- \to \Upsilon(4S)$
−0.008 ±0.002 ±0.002	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
−0.0098±0.0043±0.0021	AAIJ	16L	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.008 ±0.003 ±0.002	[2,3] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV
−0.008 ±0.006 ±0.002	[3,4] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV (OCCUR=2)
0.035 ±0.024	ABE	06	BELL	Repl. by ADACHI 24I

[1] Uses $D \to K^+K^-$ and $D \to \pi^+\pi^-$ decay modes. NODE=S041AD3;LINKAGE=D

[2] Uses $D \to K^+K^-$ decay mode. NODE=S041AD3;LINKAGE=A

[3] Superseded by AAIJ 21Q. NODE=S041AD3;LINKAGE=E

[4] Uses $D \to \pi^+\pi^-$ decay mode. NODE=S041AD3;LINKAGE=B

$A_{CP}(B^+ \to D_{CP(-1)}\pi^+)$ NODE=S041AD4

VALUE	DOCUMENT ID		TECN	COMMENT
−0.003±0.012±0.002	ADACHI	24I	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.017±0.026	ABE	06	BELL	Repl. by ADACHI 24I

$A_{CP}([K^\mp\pi^\pm\pi^+\pi^-]_D\pi^+)$ NODE=S041AYA

VALUE	DOCUMENT ID		TECN	COMMENT
0.070±0.019±0.006	AAIJ	23I	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.023±0.048±0.005	[1] AAIJ	16L	LHCB	pp at 7, 8 TeV
0.13 ±0.10	AAIJ	13AE	LHCB	Repl. by AAIJ 16L

[1] Superseded by AAIJ 23I. NODE=S041AYA;LINKAGE=A

$A_{CP}(B^+ \to [\pi^+\pi^+\pi^-\pi^-]_D K^+)$ NODE=S041A00

VALUE	DOCUMENT ID		TECN	COMMENT
0.061±0.013±0.002	AAIJ	23N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.100±0.034±0.018	[1] AAIJ	16L	LHCB	pp at 7, 8 TeV

[1] Supersended by AAIJ 23N. NODE=S041A00;LINKAGE=B

$A_{CP}(B^+ \to [\pi^+\pi^-\pi^+\pi^-]_D K^*(892)^+)$ NODE=S041A08

VALUE	DOCUMENT ID		TECN	COMMENT
0.02±0.11±0.01	AAIJ	17BO	LHCB	pp at 7, 8, 13 TeV

$A_{CP}(B^+ \to [K^+K^-\pi^+\pi^-]_D K^+)$ NODE=S041A69

VALUE	DOCUMENT ID		TECN	COMMENT
0.095±0.023±0.002	AAIJ	23N	LHCB	pp at 7, 8, 13 TeV

$A_{CP}(B^+ \to [K^+K^-\pi^+\pi^-]_D\pi^+)$ NODE=S041A70

VALUE	DOCUMENT ID		TECN	COMMENT
−0.009±0.006±0.001	AAIJ	23N	LHCB	pp at 7, 8, 13 TeV

$A_{CP}(B^+ \to \overline{D}^0 K^+)$ NODE=S041AY2

VALUE	DOCUMENT ID		TECN	COMMENT
−0.018 ±0.004 OUR AVERAGE				
−0.014 ±0.017 ±0.001	ADACHI	24I	BELL	$e^+e^- \to \Upsilon(4S)$
−0.019 ±0.005 ±0.002	[1] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV
−0.0194±0.0072±0.0060	AAIJ	16L	LHCB	pp at 7, 8 TeV
0.010 ±0.026 ±0.005	[2] AAIJ	15W	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.000 ±0.012 ±0.002	[3] AAIJ	16L	LHCB	pp at 7, 8 TeV OCCUR=2
−0.029 ±0.020 ±0.018	[3] AAIJ	13AE	LHCB	Repl. by AAIJ 16L
0.066 ±0.036	ABE	06	BELL	Repl. by ADACHI 24I
0.003 ±0.080 ±0.037	[4] ABE	03D	BELL	Repl. by SWAIN 03
0.04 ±0.06 ±0.03	[5] SWAIN	03	BELL	Repl. by ABE 06

[1] Supersedes AAIJ 16L. NODE=S041AY2;LINKAGE=D
[2] Uses $D^0 \to K^-\pi^+\pi^0$ for the favored mode, and $D^0 \to K^+\pi^-\pi^0$ for the suppressed mode. NODE=S041AY2;LINKAGE=B
[3] Uses $B^\pm \to [K^\pm\pi^\mp\pi^+\pi^-]_D h^\pm$ mode. NODE=S041AY2;LINKAGE=AJ
[4] Corresponds to 90% confidence range $-0.15 < A_{CP} < 0.16$. NODE=S041AY2;LINKAGE=A
[5] Corresponds to 90% confidence range $-0.07 < A_{CP} < 0.15$. NODE=S041AY2;LINKAGE=SW

$A_{CP}([K^\mp\pi^\pm\pi^+\pi^-]_D K^+)$ NODE=S041AYB

VALUE	DOCUMENT ID		TECN	COMMENT
−0.321±0.039±0.005	AAIJ	23I	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.313±0.102±0.038	[1] AAIJ	16L	LHCB	pp at 7, 8 TeV
−0.42 ±0.22	AAIJ	13AE	LHCB	Repl. by AAIJ 16L

[1] Superseded by AAIJ 23I. NODE=S041AYB;LINKAGE=A

$A_{CP}(B^+ \to [\pi^+\pi^+\pi^-\pi^-]_D\pi^+)$ NODE=S041A01

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
−8.2±3.1±0.7	AAIJ	23N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−4.1±7.9±2.4	[1] AAIJ	16L	LHCB	pp at 7, 8 TeV

[1] Superseded by AAIJ 23N. NODE=S041A01;LINKAGE=B

$A_{CP}(B^+ \to [K^-\pi^+]_D K^+)$

NODE=S041AC0

VALUE	DOCUMENT ID		TECN	COMMENT
-0.58 ± 0.21 OUR AVERAGE				
$-0.82\pm0.44\pm0.09$	AALTONEN	11AJ	CDF	$p\overline{p}$ at 1.96 TeV
$-0.39^{+0.26}_{-0.28}{}^{+0.04}_{-0.03}$	HORII	11	BELL	$e^+e^- \to \Upsilon(4S)$
$-0.86\pm0.47^{+0.12}_{-0.16}$	DEL-AMO-SA...	10H	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$-0.1\ {}^{+0.8}_{-1.0}\pm0.4$	HORII	08	BELL	Repl. by HORII 11
$+0.88^{+0.77}_{-0.62}\pm0.06$	SAIGO	05	BELL	Repl. by HORII 08

$A_{CP}(B^+ \to [K^-\pi^+\pi^0]_D K^+)$

NODE=S041AK2

VALUE	DOCUMENT ID		TECN	COMMENT
-0.27 ± 0.27 OUR AVERAGE Error includes scale factor of 2.4.				
$-0.38\pm0.12\pm0.02$	AAIJ	22T	LHCB	pp at 7, 8, 13 TeV
$0.41\pm0.30\pm0.05$	NAYAK	13	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$-0.20\pm0.27\pm0.04$	[1] AAIJ	15W	LHCB	Repl. by AAIJ 22T

[1] Uses $D^0 \to K^-\pi^+\pi^0$ for the favored mode, and $D^0 \to K^+\pi^-\pi^0$ for the suppressed mode. NODE=S041AK2;LINKAGE=A

$A_{CP}(B^+ \to [K^+\pi^-\pi^0]_D K^+)$

NODE=S041A65

VALUE	DOCUMENT ID		TECN	COMMENT
$-0.024\pm0.013\pm0.002$	AAIJ	22T	LHCB	pp at 7, 8, 13 TeV

$A_{CP}(B^+ \to [K^+K^-\pi^0]_D K^+)$

NODE=S041AG0

VALUE	DOCUMENT ID		TECN	COMMENT
$0.067\pm0.073\pm0.003$	AAIJ	22T	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.30\ \pm0.20\ \pm0.02$	[1] AAIJ	15W	LHCB	Repl. by AAIJ 22T

[1] Uses $D \to K^+K^-\pi^0$ mode. NODE=S041AG0;LINKAGE=A

$A_{CP}(B^+ \to [\pi^+\pi^-\pi^0]_D K^+)$

NODE=S041AG1

VALUE	DOCUMENT ID		TECN	COMMENT
$0.109\pm0.043\pm0.003$	AAIJ	22T	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.054\pm0.091\pm0.011$	[1] AAIJ	15W	LHCB	Repl. by AAIJ 22T

[1] Uses $D \to \pi^+\pi^-\pi^0$ mode. NODE=S041AG1;LINKAGE=A

$A_{CP}(B^+ \to \overline{D}^0 K^*(892)^+)$

NODE=S041A09

VALUE	DOCUMENT ID		TECN	COMMENT
-0.007 ± 0.019 OUR AVERAGE				
$-0.004\pm0.023\pm0.008$	[1] AAIJ	17BO	LHCB	pp at 7, 8, 13 TeV
$-0.013\pm0.031\pm0.009$	[2] AAIJ	17BO	LHCB	pp at 7, 8, 13 TeV OCCUR=2

[1] Uses $B^\pm \to [K^\pm\pi^\mp]_D K^*(892)^\pm$ decay mode. NODE=S041A09;LINKAGE=A

[2] Uses $B^\pm \to [K^\pm\pi^\mp\pi^+\pi^-]_D K^*(892)^\pm$ decay mode. NODE=S041A09;LINKAGE=B

$A_{CP}(B^+ \to [K^-\pi^+]_{\overline{D}} K^*(892)^+)$

NODE=S041AC4

VALUE	DOCUMENT ID		TECN	COMMENT
-0.75 ± 0.16 OUR AVERAGE				
$-0.81\pm0.17\pm0.04$	AAIJ	17BO	LHCB	pp at 7, 8, 13 TeV
$-0.34\pm0.43\pm0.16$	AUBERT	09AJ	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$-0.22\pm0.61\pm0.17$	AUBERT,B	05V	BABR	Repl. by AUBERT 09AJ

$A_{CP}(B^+ \to [K^-\pi^+\pi^-\pi^+]_{\overline{D}} K^*(892)^+)$

NODE=S041A07

VALUE	DOCUMENT ID		TECN	COMMENT
$-0.45\pm0.21\pm0.14$	AAIJ	17BO	LHCB	pp at 7, 8, 13 TeV

$A_{CP}(B^+ \to [K^-\pi^+]_D\pi^+)$

NODE=S041AC1

VALUE	DOCUMENT ID		TECN	COMMENT
0.00±0.09 OUR AVERAGE				
0.13±0.25±0.02	AALTONEN	11AJ	CDF	$p\overline{p}$ at 1.96 TeV
$-0.04\pm0.11^{+0.02}_{-0.01}$	HORII	11	BELL	$e^+e^- \to \Upsilon(4S)$
0.03±0.17±0.04	DEL-AMO-SA...	10H	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$-0.02^{+0.15}_{-0.16}\pm0.04$	HORII	08	BELL	Repl. by HORII 11
$+0.30^{+0.29}_{-0.25}\pm0.06$	SAIGO	05	BELL	Repl. by HORII 08

$A_{CP}(B^+ \to [K^-\pi^+\pi^0]_D\pi^+)$

NODE=S041AP2

VALUE	DOCUMENT ID		TECN	COMMENT
0.08 ±0.09 OUR AVERAGE				
0.069±0.094±0.016	AAIJ	22T	LHCB	pp at 7, 8, 13 TeV
$0.16\pm0.27^{+0.03}_{-0.04}$	NAYAK	13	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.438±0.190±0.011	[1] AAIJ	15W	LHCB	Repl. by AAIJ 22T

[1] Uses $D^0 \to K^-\pi^+\pi^0$ for the favored mode, and $D^0 \to K^+\pi^-\pi^0$ for the suppressed mode.

NODE=S041AP2;LINKAGE=A

$A_{CP}(B^+ \to [K^+K^-\pi^0]_D\pi^+)$

NODE=S041AG2

VALUE	DOCUMENT ID		TECN	COMMENT
−0.001±0.019±0.002	AAIJ	22T	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.030±0.040±0.005	[1] AAIJ	15W	LHCB	Repl. by AAIJ 22T

[1] Uses $D \to K^+K^-$ mode.

NODE=S041AG2;LINKAGE=A

$A_{CP}(B^+ \to [\pi^+\pi^-\pi^0]_D\pi^+)$

NODE=S041AG3

VALUE	DOCUMENT ID		TECN	COMMENT
0.001±0.010±0.002	AAIJ	22T	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.016±0.020±0.004	[1] AAIJ	15W	LHCB	Repl. by AAIJ 22T

[1] Uses $D \to \pi^+\pi^-$ mode.

NODE=S041AG3;LINKAGE=A

$A_{CP}(B^+ \to [K^-\pi^+]_{(D\pi)}\pi^+)$

NODE=S041AC6

VALUE	DOCUMENT ID		TECN	COMMENT
−0.09±0.27±0.05	DEL-AMO-SA..	10H	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to [K^-\pi^+]_{(D\gamma)}\pi^+)$

NODE=S041AC7

VALUE	DOCUMENT ID		TECN	COMMENT
−0.65±0.55±0.22	DEL-AMO-SA..	10H	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to [K^-\pi^+]_{(D\pi)}K^+)$

NODE=S041AC8

VALUE	DOCUMENT ID		TECN	COMMENT
0.77±0.35±0.12	DEL-AMO-SA..	10H	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to [K^-\pi^+]_{(D\gamma)}K^+)$

NODE=S041AC9

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.36\pm0.94^{+0.25}_{-0.41}}$	DEL-AMO-SA..	10H	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to [\pi^+\pi^-\pi^0]_DK^+)$

NODE=S041AC2

VALUE	DOCUMENT ID		TECN	COMMENT
−0.02±0.15±0.03	[1] AUBERT	07BJ	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.02±0.16±0.03	AUBERT,B	05T	BABR	Repl. by AUBERT 07BJ

[1] Uses a Dalitz plot analysis of $D^0 \to \pi^+\pi^-\pi^0$. Also reports the one-sigma regions: $0.06 < r_B < 0.78$, $-30^\circ < \gamma < 76^\circ$, and $-27^\circ < \delta < 78^\circ$.

NODE=S041AC2;LINKAGE=UB

$A_{CP}(B^+ \to [K^0_S K^+ \pi^-]_D K^+)$

NODE=S041AC3
NODE=S041AC3

VALUE	DOCUMENT ID	TECN	COMMENT
0.00 ±0.09 OUR AVERAGE	Error includes scale factor of 1.4.		
−0.089±0.091±0.011	[1] ADACHI 23L	BELL	$e^+ e^- \to \Upsilon(4S)$
0.095±0.089±0.018	[2] AAIJ 20N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.040±0.091±0.018	[1] AAIJ 14V	LHCB	Repl. by AAIJ 20N

[1] The analysis uses all of $D \to K^0_S K \pi$ Dalitz decays. NODE=S041AC3;LINKAGE=B

[2] The analysis uses $D \to K^0_S K \pi$ Dalitz decays with $K^{*-} K^+$ region excluded. NODE=S041AC3;LINKAGE=A

$A_{CP}(B^+ \to [K^0_S K^- \pi^+]_D K^+)$

NODE=S041ACA
NODE=S041ACA

VALUE	DOCUMENT ID	TECN	COMMENT
0.00 ±0.07 OUR AVERAGE			
0.109±0.133±0.013	[1] ADACHI 23L	BELL	$e^+ e^- \to \Upsilon(4S)$
−0.038±0.075±0.011	[2] AAIJ 20N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.233±0.129±0.024	[1] AAIJ 14V	LHCB	Repl. by AAIJ 20N

[1] The anaysis uses all of $D \to K^0_S K \pi$ Dalitz decays. NODE=S041ACA;LINKAGE=AA

[2] The analysis uses $D \to K^0_S K \pi$ Dalitz decays with $K^{*-} K^+$ region excluded. NODE=S041ACA;LINKAGE=A

$A_{CP}(B^+ \to [K^0_S K^- \pi^+]_D \pi^+)$

NODE=S041ACB
NODE=S041ACB

VALUE	DOCUMENT ID	TECN	COMMENT
−0.003±0.014 OUR AVERAGE			
−0.028±0.031±0.009	[1] ADACHI 23L	BELL	$e^+ e^- \to \Upsilon(4S)$
0.003±0.015±0.003	[2] AAIJ 20N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
−0.052±0.029±0.017	[1] AAIJ 14V	LHCB	Repl. by AAIJ 20N

[1] The anaysis uses all of $D \to K^0_S K \pi$ Dalitz decays. NODE=S041ACB;LINKAGE=AA

[2] The analysis uses $D \to K^0_S K \pi$ Dalitz decays with $K^{*-} K^+$ region excluded. NODE=S041ACB;LINKAGE=A

$A_{CP}(B^+ \to [K^0_S K^+ \pi^-]_D \pi^+)$

NODE=S041ACC
NODE=S041ACC

VALUE	DOCUMENT ID	TECN	COMMENT
−0.016±0.025 OUR AVERAGE	Error includes scale factor of 1.5.		
0.018±0.026±0.009	[1] ADACHI 23L	BELL	$e^+ e^- \to \Upsilon(4S)$
−0.034±0.020±0.003	[2] AAIJ 20N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
−0.025±0.024±0.010	[1] AAIJ 14V	LHCB	Repl. by AAIJ 20N

[1] The anaysis uses all of $D \to K^0_S K \pi$ Dalitz decays. NODE=S041ACC;LINKAGE=AA

[2] The analysis uses $D \to K^0_S K \pi$ Dalitz decays with $K^{*-} K^+$ region excluded. NODE=S041ACC;LINKAGE=A

$A_{CP}(B^+ \to [K^*(892)^- K^+]_D K^+)$

NODE=S041ACD
NODE=S041ACD

VALUE	DOCUMENT ID	TECN	COMMENT
0.08 ±0.05 OUR AVERAGE			
0.055±0.119±0.020	[1] ADACHI 23L	BELL	$e^+ e^- \to \Upsilon(4S)$
0.084±0.049±0.008	[1] AAIJ 20N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.026±0.109±0.029	[1] AAIJ 14V	LHCB	Repl. by AAIJ 20N

[1] The Analysis uses $D \to K^*(892) K \to K^0_S K \pi$ decays. NODE=S041ACD;LINKAGE=AA

$A_{CP}(B^+ \to [K^*(892)^+ K^-]_D K^+)$

NODE=S041ACE
NODE=S041ACE

VALUE	DOCUMENT ID	TECN	COMMENT
0.07 ±0.09 OUR AVERAGE			
0.231±0.184±0.014	[1] ADACHI 23L	BELL	$e^+ e^- \to \Upsilon(4S)$
0.021±0.094±0.017	[1] AAIJ 20N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.336±0.208±0.026	[1] AAIJ 14V	LHCB	Repl. by AAIJ 20N

[1] The Analysis uses $D \to K^*(892) K \to K^0_S K \pi$ decays. NODE=S041ACE;LINKAGE=AA

$A_{CP}(B^+ \to [K^*(892)^+ K^-]_D \pi^+)$

NODE=S041ACF

VALUE	DOCUMENT ID		TECN	COMMENT
0.007±0.016 OUR AVERAGE				
0.009±0.046±0.009	[1] ADACHI	23L	BELL	$e^+ e^- \to \Upsilon(4S)$
0.007±0.017±0.003	[1] AAIJ	20N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.054±0.043±0.017	[1] AAIJ	14V	LHCB	Repl. by AAIJ 20N

[1] The Analysis uses $D \to K^*(892) K \to K^0_S K \pi$ decays.

NODE=S041ACF;LINKAGE=AA

$A_{CP}(B^+ \to [K^*(892)^- K^+]_D \pi^+)$

NODE=S041ACG

VALUE	DOCUMENT ID		TECN	COMMENT
−0.013±0.020 OUR AVERAGE Error includes scale factor of 1.9.				
0.046±0.029±0.016	[1] ADACHI	23L	BELL	$e^+ e^- \to \Upsilon(4S)$
−0.020±0.011±0.003	[1] AAIJ	20N	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.012±0.028±0.010	[1] AAIJ	14V	LHCB	Repl. by AAIJ 20N

[1] The Analysis uses $D \to K^*(892) K \to K^0_S K \pi$ decays.

NODE=S041ACG;LINKAGE=AA

$A_{CP}(B^+ \to D_{CP(+1)} K^+)$

NODE=S041AY3

VALUE	DOCUMENT ID		TECN	COMMENT
0.132±0.015 OUR AVERAGE Error includes scale factor of 1.8.				
0.125±0.058±0.014	ADACHI	24I	BELL	$e^+ e^- \to \Upsilon(4S)$
0.136±0.009±0.001	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
0.097±0.018±0.009	AAIJ	16L	LHCB	pp at 7, 8 TeV
0.39 ±0.17 ±0.04	AALTONEN	10A	CDF	$p\overline{p}$ at 1.96 TeV
0.25 ±0.06 ±0.02	[2] DEL-AMO-SA...	10G	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.126±0.014±0.002	[3,4] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV
0.115±0.025±0.007	[4,5] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV OCCUR=2
0.145±0.032±0.010	[6] AAIJ	12M	LHCB	Repl. by AAIJ 16L
0.27 ±0.09 ±0.04	AUBERT	08AA	BABR	Repl. by DEL-AMO-SANCHEZ 10G
0.06 ±0.14 ±0.05	ABE	06	BELL	Repl. by ADACHI 24I
0.35 ±0.13 ±0.04	AUBERT	06J	BABR	Repl. by AUBERT 08AA
0.07 ±0.17 ±0.06	AUBERT	04N	BABR	Repl. by AUBERT 06J
0.29 ±0.26 ±0.05	[7] ABE	03D	BELL	Repl. by SWAIN 03
0.06 ±0.19 ±0.04	[8] SWAIN	03	BELL	Repl. by ABE 06

[1] Uses $D \to K^+ K^-$ and $D \to \pi^+ \pi^-$ decay modes. NODE=S041AY3;LINKAGE=D

[2] Reports the first evidence for direct CP violation in $B \to D K$ decays with 3.6 standard deviations. NODE=S041AY3;LINKAGE=DE

[3] Uses $D \to K^+ K^-$ decay mode. NODE=S041AY3;LINKAGE=B

[4] Superseded by AAIJ 21Q. NODE=S041AY3;LINKAGE=E

[5] Uses $D \to \pi^+ \pi^-$ decay mode. NODE=S041AY3;LINKAGE=C

[6] AAIJ 12M reports an evidence of direct CP violation in $B^{\pm} \to D K^{\pm}$ decays with a total significance of 5.8 σ. NODE=S041AY3;LINKAGE=AI

[7] Corresponds to 90% confidence range $-0.14 < A_{CP} < 0.73$. NODE=S041AY3;LINKAGE=A

[8] Corresponds to 90% confidence range $-0.26 < A_{CP} < 0.38$. NODE=S041AY3;LINKAGE=SW

$A_{ADS}(B^+ \to D K^+)$

NODE=S041AA1

$$A_{ADS}(B^+ \to D K^+) = \frac{(R^-_K - R^+_K)}{(R^-_K + R^+_K)} \text{ where}$$

NODE=S041AA1

$R^-_K = \Gamma(B^- \to [K^+ \pi^-]_D K^-) / \Gamma(B^- \to [K^- \pi^+]_D K^-)$ and

$R^+_K = \Gamma(B^+ \to [K^- \pi^+]_D K^+) / \Gamma(B^+ \to [K^+ \pi^-]_D K^+)$

NODE=S041AA1

VALUE	DOCUMENT ID		TECN	COMMENT
−0.451±0.026	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.403±0.056±0.011	[2] AAIJ	16L	LHCB	pp at 7, 8 TeV
−0.52 ±0.15 ±0.02	AAIJ	12M	LHCB	Repl. by AAIJ 16L

[1] The statistical and systematic uncertainties have been combined according to the correlations between the R^-_K and R^+_K observables. NODE=S041AA1;LINKAGE=A

[2] Superseded by AAIJ 21Q. NODE=S041AA1;LINKAGE=B

$A_{ADS}(B^+ \to D\pi^+)$ NODE=S041AA2

$A_{ADS}(B^+ \to D\pi^+) = \frac{(R_\pi^- - R_\pi^+)}{(R_\pi^- + R_\pi^+)}$ where NODE=S041AA2

$R_\pi^- = \Gamma(B^- \to [K^+\pi^-]_D\pi^-) / \Gamma(B^- \to [K^-\pi^+]_D\pi^-)$ and

$R_\pi^+ = \Gamma(B^+ \to [K^-\pi^+]_D\pi^+) / \Gamma(B^+ \to [K^+\pi^-]_D\pi^+)$

VALUE	DOCUMENT ID		TECN	COMMENT
0.129±0.014	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.100±0.031±0.009	[2] AAIJ	16L	LHCB	pp at 7, 8 TeV
0.143±0.062±0.011	AAIJ	12M	LHCB	Repl. by AAIJ 16L

NODE=S041AA2

[1] The statistical and systematic uncertainties have been combined according to the correlations between the R_π^- and R_π^+ observables. NODE=S041AA2;LINKAGE=A

[2] Superseded by AAIJ 21Q. NODE=S041AA2;LINKAGE=B

$A_{ADS}(B^+ \to [D\gamma]_{D^*}K^+)$ NODE=S041A45

$A_{ADS}(B^+ \to D^*(D\gamma)K^+) = (\mathrm{R}_K^- - \mathrm{R}_K^+) / (\mathrm{R}_K^- + \mathrm{R}_K^+)$, where NODE=S041A45

$\mathrm{R}_K^- = \Gamma(B^- \to (\gamma[K^+\pi^-]_D)_{D^*}K^-) / \Gamma(B^- \to (\gamma[K^-\pi^+]_D)_{D^*}K^-)$ and

$\mathrm{R}_K^+ = \Gamma(B^+ \to (\gamma[K^-\pi^+]_D)_{D^*}K^+) / \Gamma(B^+ \to (\gamma[K^+\pi^-]_D)_{D^*}K^+)$

VALUE	DOCUMENT ID		TECN	COMMENT
−0.558±1.349	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV

NODE=S041A45

[1] The statistical and systematic uncertainties have been combined according to the correlations between the R_K^- and R_K^+ observables. NODE=S041A45;LINKAGE=A

$A_{ADS}(B^+ \to [D\pi^0]_{D^*}K^+)$ NODE=S041A46

$A_{ADS}(B^+ \to D^*(D\pi^0)K^+) = (\mathrm{R}_K^- - \mathrm{R}_K^+) / (\mathrm{R}_K^- + \mathrm{R}_K^+)$, where NODE=S041A46

$\mathrm{R}_K^- = \Gamma(B^- \to ([K^+\pi^-]_D\pi^0)_{D^*}K^-) / \Gamma(B^- \to ([K^-\pi^+]_D\pi^0)_{D^*}K^-)$ and

$\mathrm{R}_K^+ = \Gamma(B^+ \to ([K^-\pi^+]_D\pi^0)_{D^*}K^+) / \Gamma(B^+ \to ([K^+\pi^-]_D\pi^0)_{D^*}K^+)$

VALUE	DOCUMENT ID		TECN	COMMENT
0.717±0.286	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV

NODE=S041A46

[1] The statistical and systematic uncertainties have been combined according to the correlations between the R_K^- and R_K^+ observables. NODE=S041A46;LINKAGE=A

$A_{ADS}(B^+ \to [D\gamma]_{D^*}\pi^+)$ NODE=S041A47

$A_{ADS}(B^+ \to D^*(D\gamma)\pi^+) = (\mathrm{R}_\pi^- - \mathrm{R}_\pi^+) / (\mathrm{R}_\pi^- + \mathrm{R}_\pi^+)$, where NODE=S041A47

$\mathrm{R}_\pi^- = \Gamma(B^- \to (\gamma[K^+\pi^-]_D)_{D^*}\pi^-) / \Gamma(B^- \to (\gamma[K^-\pi^+]_D)_{D^*}\pi^-)$ and

$\mathrm{R}_\pi^+ = \Gamma(B^+ \to (\gamma[K^-\pi^+]_D)_{D^*}\pi^+) / \Gamma(B^+ \to (\gamma[K^+\pi^-]_D)_{D^*}\pi^+)$

VALUE	DOCUMENT ID		TECN	COMMENT
0.079±0.128	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV

NODE=S041A47

[1] The statistical and systematic uncertainties have been combined according to the correlations between the R_π^- and R_π^+ observables. NODE=S041A47;LINKAGE=A

$A_{ADS}(B^+ \to [D\pi^0]_{D^*}\pi^+)$ NODE=S041A48

$A_{ADS}(B^+ \to D^*(D\pi^0)\pi^+) = (\mathrm{R}_\pi^- - \mathrm{R}_\pi^+) / (\mathrm{R}_\pi^- + \mathrm{R}_\pi^+)$, where NODE=S041A48

$\mathrm{R}_\pi^- = \Gamma(B^- \to ([K^+\pi^-]_D\pi^0)_{D^*}\pi^-) / \Gamma(B^- \to ([K^-\pi^+]_D\pi^0)_{D^*}\pi^-)$ and

$\mathrm{R}_\pi^+ = \Gamma(B^+ \to ([K^-\pi^+]_D\pi^0)_{D^*}\pi^+) / \Gamma(B^+ \to ([K^+\pi^-]_D\pi^0)_{D^*}\pi^+)$

VALUE	DOCUMENT ID		TECN	COMMENT
−0.140±0.059	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV

NODE=S041A48

[1] The statistical and systematic uncertainties have been combined according to the correlations between the R_π^- and R_π^+ observables. NODE=S041A48;LINKAGE=A

$A_{ADS}(B^+ \to [K^-\pi^+]_D K^+\pi^-\pi^+)$ NODE=S041AA3

NODE=S041AA3

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{-0.33^{+0.36}_{-0.34}}$	AAIJ	15BC	LHCB	pp at 7, 8 TeV

$A_{ADS}(B^+ \to [K^-\pi^+]_D \pi^+\pi^-\pi^+)$ NODE=S041AA4

NODE=S041AA4

VALUE	DOCUMENT ID		TECN	COMMENT
−0.013±0.087	AAIJ	15BC	LHCB	pp at 7, 8 TeV

$A_{CP}(B^+ \to D_{CP(-1)} K^+)$

NODE=S041AY4

VALUE	DOCUMENT ID		TECN	COMMENT
−0.14 ±0.05 OUR AVERAGE				
−0.167±0.057±0.006	ADACHI	24I	BELL	$e^+ e^- \to \Upsilon(4S)$
−0.09 ±0.07 ±0.02	DEL-AMO-SA..10G		BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.09 ±0.09 ±0.02	AUBERT	08AA	BABR	Repl. by DEL-AMO-SANCHEZ 10G
−0.12 ±0.14 ±0.05	ABE	06	BELL	Repl. by ADACHI 24I
−0.06 ±0.13 ±0.04	AUBERT	06J	BABR	Repl. by AUBERT 08AA
−0.22 ±0.24 ±0.04	[1] ABE	03D	BELL	Repl. by SWAIN 03
−0.19 ±0.17 ±0.05	[2] SWAIN	03	BELL	Repl. by ABE 06

[1] Corresponds to 90% confidence range $-0.62 < A_{CP} < 0.18$. NODE=S041AY4;LINKAGE=A

[2] Corresponds to 90% confidence range $-0.47 < A_{CP} < 0.11$. NODE=S041AY4;LINKAGE=SW

$A_{CP}(B^+ \to [K^+ K^-]_D K^+ \pi^- \pi^+)$

NODE=S041AA5

VALUE	DOCUMENT ID		TECN	COMMENT
−0.045±0.064±0.011	AAIJ	15BC	LHCB	pp at 7, 8 TeV

$A_{CP}(B^+ \to [\pi^+ \pi^-]_D K^+ \pi^- \pi^+)$

NODE=S041AA6

VALUE	DOCUMENT ID		TECN	COMMENT
−0.054±0.101±0.011	AAIJ	15BC	LHCB	pp at 7, 8 TeV

$A_{CP}(B^+ \to [K^- \pi^+]_D K^+ \pi^- \pi^+)$

NODE=S041AA7

VALUE	DOCUMENT ID		TECN	COMMENT
0.013±0.019±0.013	AAIJ	15BC	LHCB	pp at 7, 8 TeV

$A_{CP}(B^+ \to [K^+ K^-]_D \pi^+ \pi^- \pi^+)$

NODE=S041AA8

VALUE	DOCUMENT ID		TECN	COMMENT
−0.019±0.011±0.010	AAIJ	15BC	LHCB	pp at 7, 8 TeV

$A_{CP}(B^+ \to [\pi^+ \pi^-]_D \pi^+ \pi^- \pi^+)$

NODE=S041AA9

VALUE	DOCUMENT ID		TECN	COMMENT
−0.013±0.016±0.010	AAIJ	15BC	LHCB	pp at 7, 8 TeV

$A_{CP}(B^+ \to [K^- \pi^+]_D \pi^+ \pi^- \pi^+)$

NODE=S041AA0

VALUE	DOCUMENT ID		TECN	COMMENT
−0.002±0.003±0.011	AAIJ	15BC	LHCB	pp at 7, 8 TeV

$A_{CP}(B^+ \to [\overline{D}^0 \gamma]_{\overline{D}^*} \pi^+)$

NODE=S041D29

VALUE	DOCUMENT ID		TECN	COMMENT
−0.004±0.004±0.001	AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.000±0.006±0.001	[1] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV

[1] Superseded by AAIJ 21Q. NODE=S041D29;LINKAGE=A

$A_{CP}(B^+ \to [\overline{D}^0 \pi^0]_{\overline{D}^*} \pi^+)$

NODE=S041AD5

VALUE	DOCUMENT ID		TECN	COMMENT	
0.0007±0.0022 OUR AVERAGE					
0.001 ±0.002 ±0.001	AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV	OCCUR=2
−0.014 ±0.015	ABE	06	BELL	$e^+ e^- \to \Upsilon(4S)$	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.002 ±0.003 ±0.001	[1] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV	OCCUR=3

[1] Superseded by AAIJ 21Q. NODE=S041AD5;LINKAGE=F

$A_{CP}(B^+ \to [\overline{D}^0 \gamma]_{\overline{D}^{*0}_{CP(-1)}} \pi^+)$

NODE=S041D31

VALUE	DOCUMENT ID		TECN	COMMENT	
0.000±0.014±0.006	AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
−0.003±0.017±0.002	[1] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV	OCCUR=3

[1] Superseded by AAIJ 21Q. NODE=S041D31;LINKAGE=A

$A_{CP}(B^+ \to [\overline{D}^0\pi^0]_{D^{*0}_{CP(+1)}}\pi^+)$

NODE=S041AD6
NODE=S041AD6

VALUE	DOCUMENT ID		TECN	COMMENT	
0.012±0.008 OUR AVERAGE					
0.013±0.007±0.003	AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV	OCCUR=2
−0.021±0.045	ABE	06	BELL	$e^+e^- \to \Upsilon(4S)$	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.025±0.010±0.003	[1] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV	OCCUR=2

[1] Superseded by AAIJ 21Q. NODE=S041AD6;LINKAGE=E

$A_{CP}(B^+ \to [\overline{D}^0\pi^0]_{D^{*0}_{CP(-1)}}\pi^+)$

NODE=S041AD7
NODE=S041AD7

VALUE	DOCUMENT ID		TECN	COMMENT
−0.090±0.051	ABE	06	BELL	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to [\overline{D}^0\gamma]_{\overline{D}^{*0}}K^+)$

NODE=S041D30
NODE=S041D30

VALUE	DOCUMENT ID		TECN	COMMENT
−0.004±0.014±0.003	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.001±0.021±0.007	[2] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV

[1] The $\overline{D}^0 \to K^+\pi^-$ decay is used. NODE=S041D30;LINKAGE=B

[2] Superseded by AAIJ 21Q. NODE=S041D30;LINKAGE=A

$A_{CP}(B^+ \to [\overline{D}^0\pi^0]_{\overline{D}^{*0}}K^+)$

NODE=S041AD8
NODE=S041AD8

VALUE	DOCUMENT ID		TECN	COMMENT	
0.017±0.007 OUR AVERAGE					
0.020±0.007±0.003	[1] AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV	OCCUR=2
−0.06 ±0.04 ±0.01	AUBERT	08BF	BABR	$e^+e^- \to \Upsilon(4S)$	
−0.089±0.086	ABE	06	BELL	$e^+e^- \to \Upsilon(4S)$	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.006±0.012±0.004	[2] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV	OCCUR=2

[1] The $\overline{D}^0 \to K^+\pi^-$ decay is used. NODE=S041AD8;LINKAGE=C

[2] Superseded by AAIJ 21Q. NODE=S041AD8;LINKAGE=E

$A_{CP}(B^+ \to [\overline{D}^0\gamma]_{\overline{D}^{*0}_{CP(-1)}}K^+)$

NODE=S041D32
NODE=S041D32

VALUE	DOCUMENT ID		TECN	COMMENT
0.123±0.054±0.031	AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.276±0.094±0.047	[1] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV

[1] Superseded by AAIJ 21Q. NODE=S041D32;LINKAGE=A

$A_{CP}(B^+ \to [D^0\pi^0]_{D^{*0}_{CP(+1)}}K^+)$

NODE=S041AC+
NODE=S041AC+

VALUE	DOCUMENT ID		TECN	COMMENT	
−0.115±0.020 OUR AVERAGE					
−0.115±0.019±0.009	AAIJ	21Q	LHCB	pp at 7, 8, 13 TeV	OCCUR=2
−0.11 ±0.09 ±0.01	AUBERT	08BF	BABR	$e^+e^- \to \Upsilon(4S)$	
−0.20 ±0.22 ±0.04	ABE	06	BELL	$e^+e^- \to \Upsilon(4S)$	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
−0.151±0.033±0.011	[1] AAIJ	18A	LHCB	pp at 7, 8, 13 TeV	OCCUR=2
−0.10 ±0.23 $^{+0.03}_{-0.04}$	AUBERT	05N	BABR	Repl. by AUBERT 08BF	

[1] Superseded by AAIJ 21Q. NODE=S041AC+;LINKAGE=E

$A_{CP}(B^+ \to [D^0\pi^0]_{D^{*0}_{CP(-1)}}K^+)$

NODE=S041AD1
NODE=S041AD1

VALUE	DOCUMENT ID		TECN	COMMENT
0.07±0.10 OUR AVERAGE				
+0.06±0.10±0.02	AUBERT	08BF	BABR	$e^+e^- \to \Upsilon(4S)$
+0.13±0.30±0.08	ABE	06	BELL	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to D_{CP(+1)} K^*(892)^+)$

NODE=S041AD+

VALUE		DOCUMENT ID		TECN	COMMENT
0.08±0.06 OUR AVERAGE					
0.08±0.06±0.01	[1]	AAIJ	17BO	LHCB	pp at 7, 8, 13 TeV
0.09±0.13±0.06		AUBERT	09AJ	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
−0.08±0.19±0.08		AUBERT,B	05U	BABR	Repl. by AUBERT 09AJ

[1] Measures the asymmetry separately for K^+K^- and $\pi^+\pi^-$ final states, A(KK) = 0.06 ± 0.07 ± 0.01and A($\pi\pi$) = 0.15 ± 0.13 ± 0.01, and combines the two results. The value of A($\pi\pi$) was updated in AAIJ 18X. NODE=S041AD+;LINKAGE=A

$A_{CP}(B^+ \to D_{CP(-1)} K^*(892)^+)$

NODE=S041AD-

VALUE	DOCUMENT ID		TECN	COMMENT
−0.23±0.21±0.07	AUBERT	09AJ	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.26±0.40±0.12	AUBERT,B	05U	BABR	Repl. by AUBERT 09AJ

$A_{CP}(B^+ \to D_s^+ \phi)$

NODE=S041ADP

VALUE	DOCUMENT ID		TECN	COMMENT
−0.01±0.41±0.03	AAIJ	13R	LHCB	pp at 7 TeV

$A_{CP}(B^+ \to D_s^+ \overline{D}^0)$

NODE=S041A10

VALUE (%)		DOCUMENT ID		TECN	COMMENT
0.5±0.2±0.6	[1]	AAIJ	23AX	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
−0.4±0.5±0.5		AAIJ	18W	LHCB	Repl. by AAIJ 23AX

[1] The last error includes the uncertainty from $A_{CP}(B^+ \to J/\psi K^+)$. NODE=S041A10;LINKAGE=A

$A_{CP}(B^+ \to D_s^{*+} \overline{D}^0)$

NODE=S041D14

VALUE (units 10^{-2})		DOCUMENT ID		TECN	COMMENT
−0.5±1.1±1.0	[1]	AAIJ	23AX	LHCB	pp at 7, 8, 13 TeV

[1] The last error includes the uncertainty from $A_{CP}(B^+ \to J/\psi K^+)$. NODE=S041D14;LINKAGE=A

$A_{CP}(B^+ \to D_s^+ \overline{D}^{*0})$

NODE=S041D15

VALUE (units 10^{-2})		DOCUMENT ID		TECN	COMMENT
1.1±0.8±0.7	[1]	AAIJ	23AX	LHCB	pp at 7, 8, 13 TeV

[1] The last error includes the uncertainty from $A_{CP}(B^+ \to J/\psi K^+)$. NODE=S041D15;LINKAGE=A

$A_{CP}(B^+ \to D^{*+} \overline{D}^{*0})$

NODE=S041AS1

VALUE (units 10^{-2})		DOCUMENT ID		TECN	COMMENT
1.3± 2.6 OUR AVERAGE					
2.3± 2.1±1.7	[1]	AAIJ	23AX	LHCB	pp at 7, 8, 13 TeV
−15 ±11 ±2		AUBERT,B	06A	BABR	$e^+e^- \to \Upsilon(4S)$

[1] The last error includes the uncertainty from $A_{CP}(B^+ \to J/\psi K^+)$. NODE=S041AS1;LINKAGE=A

$A_{CP}(B^+ \to D^{*+} \overline{D}^0)$

NODE=S041AS2

VALUE (units 10^{-2})		DOCUMENT ID		TECN	COMMENT
3.1± 1.7 OUR AVERAGE					
3.3± 1.6±0.7	[1]	AAIJ	23AX	LHCB	pp at 7, 8, 13 TeV
−6 ±13 ±2		AUBERT,B	06A	BABR	$e^+e^- \to \Upsilon(4S)$

[1] The last error includes the uncertainty from $A_{CP}(B^+ \to J/\psi K^+)$. NODE=S041AS2;LINKAGE=A

$A_{CP}(B^+ \to D^+ \overline{D}^{*0})$

NODE=S041AS3

VALUE (units 10^{-2})		DOCUMENT ID		TECN	COMMENT
0.0± 2.4 OUR AVERAGE					
− 0.2± 2.0±1.4	[1]	AAIJ	23AX	LHCB	pp at 7, 8, 13 TeV
13 ±18 ±4		AUBERT,B	06A	BABR	$e^+e^- \to \Upsilon(4S)$

[1] The last error includes the uncertainty from $A_{CP}(B^+ \to J/\psi K^+)$. NODE=S041AS3;LINKAGE=A

$A_{CP}(B^+ \to D^+ \overline{D}^0)$

NODE=S041AS4
NODE=S041AS4

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
2.4± 1.1 OUR AVERAGE			
2.5± 1.0±0.5	[1] AAIJ 23AX	LHCB	pp at 7, 8, 13 TeV
0 ± 8 ±2	ADACHI 08	BELL	$e^+e^- \to \Upsilon(4S)$
−13 ±14 ±2	AUBERT,B 06A	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
2.3± 2.7±0.4	AAIJ 18W	LHCB	Repl. by AAIJ 23AX

[1] The last error includes the uncertainty from $A_{CP}(B^+ \to J/\psi K^+)$. NODE=S041AS4;LINKAGE=A

$A_{CP}(B^+ \to K^0_S \pi^+)$

NODE=S041AX4
NODE=S041AX4

VALUE	DOCUMENT ID	TECN	COMMENT
−0.003±0.015 OUR AVERAGE	Error includes scale factor of 1.1.		
0.046±0.029±0.007	ADACHI 24	BELL	$e^+e^- \to \Upsilon(4S)$
−0.022±0.025±0.010	AAIJ 13BS	LHCB	pp at 7 TeV
−0.011±0.021±0.006	DUH 13	BELL	$e^+e^- \to \Upsilon(4S)$
−0.029±0.039±0.010	[1] AUBERT,BE 06C	BABR	$e^+e^- \to \Upsilon(4S)$
0.18 ±0.24	[2] CHEN 00	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.03 ±0.03 ±0.01	LIN 07	BELL	Repl. by DUH 13
−0.09 ±0.05 ±0.01	[3] AUBERT,BE 05E	BABR	Repl. by AUBERT,BE 06C
0.05 ±0.05 ±0.01	[4] CHAO 05A	BELL	Repl. by LIN 07
−0.05 ±0.08 ±0.01	[5] AUBERT 04M	BABR	Repl. by AUBERT,BE 05E
$0.07 ^{+0.09}_{-0.08} {}^{+0.01}_{-0.03}$	[6] UNNO 03	BELL	Repl. by CHAO 05A
0.46 ±0.15 ±0.02	[7] CASEY 02	BELL	Repl. by UNNO 03
$0.098 ^{+0.430}_{-0.343} {}^{+0.020}_{-0.063}$	[8] ABE 01K	BELL	Repl. by CASEY 02
−0.21 ±0.18 ±0.03	[9] AUBERT 01E	BABR	Repl. by AUBERT 04M

[1] Corresponds to 90% confidence range $-0.092 < A_{CP} < 0.036$. NODE=S041AX4;LINKAGE=AE
[2] Corresponds to 90% confidence range $-0.22 < A_{CP} < 0.56$. NODE=S041AX4;LINKAGE=A
[3] Corresponds to 90% confidence range $-0.16 < A_{CP} < -0.02$. NODE=S041AX4;LINKAGE=AB
[4] Corresponds to 90% confidence range $-0.04 < A_{CP} < 0.13$. NODE=S041AX4;LINKAGE=CO
[5] Corresponds to 90% confidence range $-0.18 < A_{CP} < 0.08$. NODE=S041AX4;LINKAGE=AU
[6] Corresponds to 90% confidence range $-0.10 < A_{CP} < +0.22$. NODE=S041AX4;LINKAGE=UN
[7] Corresponds to 90% confidence range $+0.19 < A_{CP} < +0.72$. NODE=S041AX4;LINKAGE=CA
[8] Corresponds to 90% confidence range $-0.53 < A_{CP} < 0.82$. NODE=S041AX4;LINKAGE=AX
[9] Corresponds to 90% confidence range $-0.51 < A_{CP} < 0.09$. NODE=S041AX4;LINKAGE=L3

$A_{CP}(B^+ \to K^+ \pi^0)$

NODE=S041AX3
NODE=S041AX3

VALUE	DOCUMENT ID	TECN	COMMENT
0.027±0.012 OUR AVERAGE			
0.013±0.027±0.005	ADACHI 24	BELL	$e^+e^- \to \Upsilon(4S)$
0.025±0.015±0.007	AAIJ 21H	LHCB	pp at 13 TeV
0.043±0.024±0.002	DUH 13	BELL	$e^+e^- \to \Upsilon(4S)$
0.030±0.039±0.010	AUBERT 07BC	BABR	$e^+e^- \to \Upsilon(4S)$
−0.29 ±0.23	[1] CHEN 00	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.07 ±0.03 ±0.01	LIN 08	BELL	Repl. by DUH 13
0.06 ±0.06 ±0.01	[2] AUBERT 05L	BABR	Repl. by AUBERT 07BC
0.06 ±0.06 ±0.02	[2] CHAO 05A	BELL	Repl. by CHAO 04B
0.04 ±0.05 ±0.02	[3] CHAO 04B	BELL	Repl. by LIN 08
−0.09 ±0.09 ±0.01	[4] AUBERT 03L	BABR	Repl. by AUBERT 05L
−0.02 ±0.19 ±0.02	[5] CASEY 02	BELL	Repl. by CHAO 04B
$-0.059 ^{+0.222}_{-0.196} {}^{+0.055}_{-0.017}$	[6] ABE 01K	BELL	Repl. by CASEY 02
0.00 ±0.18 ±0.04	[7] AUBERT 01E	BABR	Repl. by AUBERT 03L

[1] Corresponds to 90% confidence range $-0.67 < A_{CP} < 0.09$. NODE=S041AX3;LINKAGE=A
[2] Corresponds to a 90% CL interval of $-0.06 < A_{CP} < 0.18$. NODE=S041AX3;LINKAGE=CO
[3] Corresponds to 90% CL interval of $-0.05 < A_{CP} < 0.13$. NODE=S041AX3;LINKAGE=CH
[4] Corresponds to 90% confidence range $-0.24 < A_{CP} < 0.06$. NODE=S041AX3;LINKAGE=3L
[5] Corresponds to 90% confidence range $-0.35 < A_{CP} < +0.30$. NODE=S041AX3;LINKAGE=CA
[6] Corresponds to 90% confidence range $-0.40 < A_{CP} < 0.36$. NODE=S041AX3;LINKAGE=AX
[7] Corresponds to 90% confidence range $-0.30 < A_{CP} < +0.30$. NODE=S041AX3;LINKAGE=L3

$A_{CP}(B^+ \to \eta' K^+)$

NODE=S041AX5

VALUE		DOCUMENT ID		TECN	COMMENT
0.004±0.011 OUR AVERAGE					
$-0.002 \pm 0.012 \pm 0.006$	[1]	AAIJ	15O	LHCB	pp at 7, 8 TeV
$0.008^{+0.017}_{-0.018} \pm 0.009$		AUBERT	09AV	BABR	$e^+e^- \to \Upsilon(4S)$
$0.028 \pm 0.028 \pm 0.021$		SCHUEMANN	06	BELL	$e^+e^- \to \Upsilon(4S)$
0.03 ± 0.12	[2]	CHEN	00	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$0.010 \pm 0.022 \pm 0.006$		AUBERT	07AE	BABR	Repl. by AUBERT 09AV
$0.033 \pm 0.028 \pm 0.005$	[3]	AUBERT	05M	BABR	Repl. by AUBERT 07AE
$0.037 \pm 0.045 \pm 0.011$	[4]	AUBERT	03W	BABR	Repl. by AUBERT 05M
$-0.11 \pm 0.11 \pm 0.02$	[5]	AUBERT	02E	BABR	Repl. by AUBERT 05M
$-0.015 \pm 0.070 \pm 0.009$	[6]	CHEN	02B	BELL	Repl. by SCHUEMANN 06
$0.06 \pm 0.15 \pm 0.01$	[7]	ABE	01M	BELL	Repl. by CHEN 02B

[1] Obtained using $A_{CP}(B^\pm \to J/\psi K^\pm) = (0.3 \pm 0.6) \times 10^{-2}$. NODE=S041AX5;LINKAGE=B

[2] Corresponds to 90% confidence range $-0.17 < A_{CP} < 0.23$. NODE=S041AX5;LINKAGE=A

[3] Corresponds to 90% confidence range $-0.012 < A_{CP} < 0.078$. NODE=S041AX5;LINKAGE=AU

[4] Corresponds to 90% confidence range $-0.04 < A_{CP} < 0.11$. NODE=S041AX5;LINKAGE=BW

[5] Corresponds to 90% confidence range $-0.28 < A_{CP} < 0.07$. NODE=S041AX5;LINKAGE=AY

[6] Corresponds to 90% confidence range $-0.13 < A_{CP} < 0.10$. NODE=S041AX5;LINKAGE=C

[7] Corresponds to 90% confidence range $-0.20 < A_{CP} < 0.32$. NODE=S041AX5;LINKAGE=AX

$A_{CP}(B^+ \to \eta' K^*(892)^+)$

NODE=S041CR7

VALUE		DOCUMENT ID		TECN	COMMENT
$-0.26 \pm 0.27 \pm 0.02$		DEL-AMO-SA...	10A	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$-0.30^{+0.33}_{-0.37} \pm 0.02$	[1]	AUBERT	07E	BABR	Repl. by DEL-AMO-SANCHEZ 10A

[1] Reports A_{CP} with the opposite sign convention. NODE=S041CR7;LINKAGE=OS

$A_{CP}(B^+ \to \eta' K_0^*(1430)^+)$

NODE=S041CT7

VALUE	DOCUMENT ID		TECN	COMMENT
$0.06 \pm 0.20 \pm 0.02$	DEL-AMO-SA...	10A	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \eta' K_2^*(1430)^+)$

NODE=S041CT8

VALUE	DOCUMENT ID		TECN	COMMENT
$0.15 \pm 0.13 \pm 0.02$	DEL-AMO-SA...	10A	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \eta K^+)$

NODE=S041CP3

VALUE	DOCUMENT ID		TECN	COMMENT
−0.37±0.08 OUR AVERAGE				
$-0.38 \pm 0.11 \pm 0.01$	HOI	12	BELL	$e^+e^- \to \Upsilon(4S)$
$-0.36 \pm 0.11 \pm 0.03$	AUBERT	09AV	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$-0.22 \pm 0.11 \pm 0.01$	AUBERT	07AE	BABR	Repl. by AUBERT 09AV
$-0.39 \pm 0.16 \pm 0.03$	CHANG	07B	BELL	Repl. by HOI 12
$-0.20 \pm 0.15 \pm 0.01$	AUBERT,B	05K	BABR	Repl. by AUBERT 07AE
$-0.49 \pm 0.31 \pm 0.07$	CHANG	05A	BELL	Repl. by CHANG 07B
$-0.52 \pm 0.24 \pm 0.01$	AUBERT	04H	BABR	Repl. by AUBERT,B 05K

$A_{CP}(B^+ \to \eta K^*(892)^+)$

NODE=S041CP1

VALUE	DOCUMENT ID		TECN	COMMENT
0.02±0.06 OUR AVERAGE				
$0.03 \pm 0.10 \pm 0.01$	WANG	07B	BELL	$e^+e^- \to \Upsilon(4S)$
$0.01 \pm 0.08 \pm 0.02$	AUBERT,B	06H	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.13 \pm 0.14 \pm 0.02$	AUBERT,B	04D	BABR	Repl. by AUBERT,B 06H

$A_{CP}(B^+ \to \eta K_0^*(1430)^+)$

NODE=S041CR5

VALUE	DOCUMENT ID		TECN	COMMENT
$0.05 \pm 0.13 \pm 0.02$	AUBERT,B	06H	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \eta K_2^*(1430)^+)$

NODE=S041CR6

VALUE	DOCUMENT ID		TECN	COMMENT
$-0.45 \pm 0.30 \pm 0.02$	AUBERT,B	06H	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \omega K^+)$

NODE=S041AY1

VALUE	DOCUMENT ID		TECN	COMMENT
−0.02±0.04 OUR AVERAGE				
−0.03±0.04±0.01	CHOBANOVA	14	BELL	$e^+ e^- \to \Upsilon(4S)$
−0.01±0.07±0.01	AUBERT	07AE	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.05±0.09±0.01	AUBERT,B	06E	BABR	Repl. by AUBERT 07AE
$0.05^{+0.08}_{-0.07}\pm0.01$	JEN	06	BELL	Repl. by CHOBANOVA 14
−0.09±0.17±0.01	AUBERT	04H	BABR	Repl. by AUBERT,B 06E
$0.06^{+0.21}_{-0.18}\pm0.01$	[1] WANG	04A	BELL	Repl. by JEN 06
−0.21±0.28±0.03	[2] LU	02	BELL	Repl. by WANG 04A

[1] Corresponds to 90% CL interval $0.15 < A_{CP} < 0.90$ NODE=S041AY1;LINKAGE=WA

[2] Corresponds to 90% confidence range $-0.70 < A_{CP} < +0.38$. NODE=S041AY1;LINKAGE=A

$A_{CP}(B^+ \to \omega K^{*+})$

NODE=S041CT0

VALUE	DOCUMENT ID		TECN	COMMENT
+0.29±0.35±0.02	AUBERT	09H	BABR	$e^+ e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \omega (K\pi)^{*+}_0)$

NODE=S041CT2

VALUE	DOCUMENT ID		TECN	COMMENT
−0.10±0.09±0.02	AUBERT	09H	BABR	$e^+ e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \omega K^*_2(1430)^+)$

NODE=S041CT3

VALUE	DOCUMENT ID		TECN	COMMENT
+0.14±0.15±0.02	AUBERT	09H	BABR	$e^+ e^- \to \Upsilon(4S)$

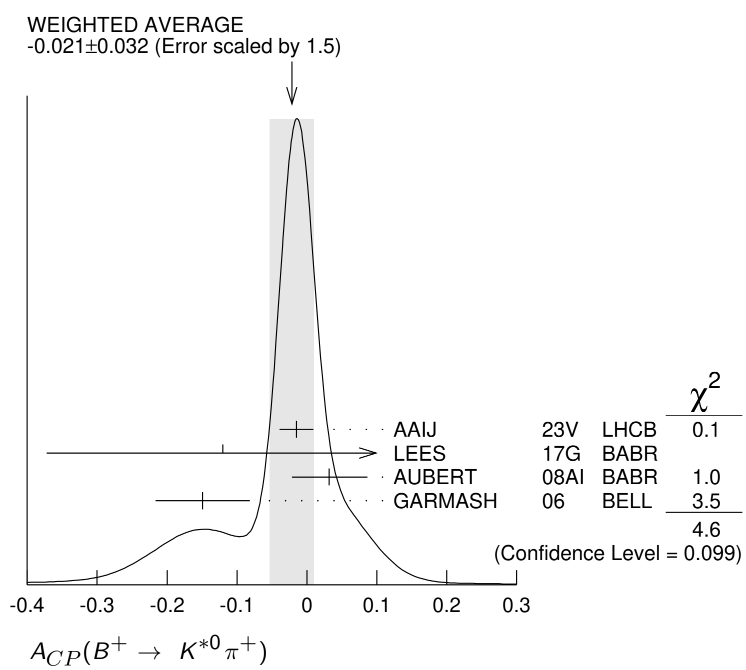
$A_{CP}(B^+ \to K^{*0} \pi^+)$

NODE=S041CQ4

−0.021±0.032 OUR AVERAGE Error includes scale factor of 1.5. See the ideogram below.

VALUE	DOCUMENT ID		TECN	COMMENT
−0.015±0.021±0.012	AAIJ	23V	LHCB	pp at 13 TeV
$-0.12\ \pm0.21\ {}^{+0.08}_{-0.14}$	[1] LEES	17G	BABR	$e^+ e^- \to \Upsilon(4S)$
$0.032\pm0.052^{+0.016}_{-0.013}$	AUBERT	08AI	BABR	$e^+ e^- \to \Upsilon(4S)$
−0.149±0.064±0.022	GARMASH	06	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.068\pm0.078^{+0.070}_{-0.067}$	AUBERT,B	05N	BABR	Repl. by AUBERT 08AI

[1] Obtains the result from a Dalitz analysis of $B^+ \to K^0_S \pi^+ \pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling. NODE=S041CQ4;LINKAGE=A



$A_{CP}(B^+ \to K^*(892)^+ \pi^0)$

NODE=S041CP8

VALUE	DOCUMENT ID		TECN	COMMENT
−0.39±0.21 OUR AVERAGE Error includes scale factor of 1.6.				
$-0.52\pm0.14^{+0.06}_{-0.05}$	[1] LEES	17G	BABR	$e^+e^- \to \Upsilon(4S)$
$-0.06\pm0.24\pm0.04$	LEES	11I	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.04\pm0.29\pm0.05$	AUBERT	05X	BABR	Repl. by LEES 11I

[1] Obtains the result from a Dalitz analysis of $B^+ \to K^0_S \pi^+ \pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling.

NODE=S041CP8;LINKAGE=A

$A_{CP}(B^+ \to K^+ \pi^- \pi^+)$

NODE=S041AY6

VALUE	DOCUMENT ID		TECN	COMMENT
0.015±0.006 OUR AVERAGE Error includes scale factor of 1.4.				
$0.011\pm0.002\pm0.004$	[1] AAIJ	23U	LHCB	pp at 13 TeV
$0.025\pm0.004\pm0.008$	[1] AAIJ	14BO	LHCB	pp at 7, 8 TeV
$0.028\pm0.020\pm0.023$	AUBERT	08AI	BABR	$e^+e^- \to \Upsilon(4S)$
$0.049\pm0.026\pm0.020$	GARMASH	06	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.032\pm0.008\pm0.008$	AAIJ	13AZ	LHCB	Repl. by AAIJ 14BO
$-0.013\pm0.037\pm0.011$	AUBERT,B	05N	BABR	Repl. by AUBERT 08AI
$0.01\pm0.07\pm0.03$	AUBERT	03M	BABR	Repl. by AUBERT,B 05N

[1] The second error includes both systematics and the uncertainties from CP asymmetries in restricted regions of phase space.

NODE=S041AY6;LINKAGE=A

$A_{CP}(B^+ \to K^+ K^- K^+ \text{ nonresonant})$

NODE=S041CU6

VALUE	DOCUMENT ID		TECN	COMMENT
0.060±0.044±0.019	LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to f(980)^0 K^+)$

NODE=S041CU7

VALUE	DOCUMENT ID		TECN	COMMENT
−0.08±0.08±0.04	[1] LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Measured in the $B^+ \to K^+ K^- K^+$ decay.

NODE=S041CU7;LINKAGE=LE

$A_{CP}(B^+ \to f_2(1270) K^+)$

NODE=S041CR0

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{-0.68^{+0.19}_{-0.17}}$ **OUR AVERAGE**				
$-0.85\pm0.22^{+0.26}_{-0.13}$	AUBERT	08AI	BABR	$e^+e^- \to \Upsilon(4S)$
$-0.59\pm0.22\pm0.036$	GARMASH	06	BELL	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to f_0(1500) K^+)$

NODE=S041CS5

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.28\pm0.26^{+0.15}_{-0.14}}$	AUBERT	08AI	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to f'_2(1525)^0 K^+)$

NODE=S041CQ5

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{-0.08\ ^{+0.05}_{-0.04}}$ **OUR AVERAGE**				
$0.18\pm0.18\pm0.04$	[1] LEES	11I	BABR	$e^+e^- \to \Upsilon(4S)$
$-0.106\pm0.050^{+0.036}_{-0.015}$	AUBERT	08AI	BABR	$e^+e^- \to \Upsilon(4S)$
$-0.077\pm0.065^{+0.046}_{-0.026}$	GARMASH	06	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.14\pm0.10\pm0.04$	[2] LEES	12O	BABR	$e^+e^- \to \Upsilon(4S)$
$-0.31\pm0.25\pm0.08$	[3] AUBERT	06O	BABR	Repl. by LEES 12O
$0.088\pm0.095^{+0.097}_{-0.056}$	AUBERT,B	05N	BABR	Repl. by AUBERT 08AI

[1] Measured in $B^+ \to f_0 K^+$ with $f_0 \to \pi^0 \pi^0$ decay.

NODE=S041CQ5;LINKAGE=LE

[2] Measured in the $B^+ \to K^+ K^- K^+$ decay assuming $A_{CP}(B^+ \to f'_2(1525)^0 K^+) = A_{CP}(B^+ \to f_0(1500)^0 K^+) = A_{CP}(B^+ \to f_0(1710)^0 K^+)$

NODE=S041CQ5;LINKAGE=LA

[3] Measured in the $B^+ \to K^+ K^- K^+$ decay.

NODE=S041CQ5;LINKAGE=AE

$A_{CP}(B^+ \to \rho^0 K^+)$

NODE=S041CQ6
NODE=S041CQ6

VALUE	DOCUMENT ID		TECN	COMMENT
0.160±0.021 OUR AVERAGE				
0.150±0.019±0.011	AAIJ	23V	LHCB	pp at 13 TeV
$0.44 \pm 0.10 {}^{+0.06}_{-0.14}$	AUBERT	08AI	BABR	$e^+ e^- \to \Upsilon(4S)$
$0.30 \pm 0.11 {}^{+0.11}_{-0.04}$	GARMASH	06	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.32 \pm 0.13 {}^{+0.10}_{-0.08}$	AUBERT,B	05N	BABR	Repl. by AUBERT 08AI

$A_{CP}(B^+ \to K^0 \pi^+ \pi^0)$

NODE=S041A06
NODE=S041A06

VALUE	DOCUMENT ID		TECN	COMMENT
0.07±0.05±0.04	[1] LEES	17G	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Obtains the result from a Dalitz analysis of $B^+ \to K^0_S \pi^+ \pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling. NODE=S041A06;LINKAGE=A

$A_{CP}(B^+ \to K^*_0(1430)^0 \pi^+)$

NODE=S041CQ7
NODE=S041CQ7

VALUE	DOCUMENT ID		TECN	COMMENT
0.061±0.032 OUR AVERAGE				
$0.14 \pm 0.10 {}^{+0.14}_{-0.06}$	[1] LEES	17G	BABR	$e^+ e^- \to \Upsilon(4S)$
$0.032 \pm 0.035 {}^{+0.034}_{-0.028}$	AUBERT	08AI	BABR	$e^+ e^- \to \Upsilon(4S)$
$0.076 \pm 0.038 {}^{+0.028}_{-0.022}$	GARMASH	06	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$-0.064 \pm 0.032 {}^{+0.023}_{-0.026}$	AUBERT,B	05N	BABR	Repl. by AUBERT 08AI

[1] Obtains the result from a Dalitz analysis of $B^+ \to K^0_S \pi^+ \pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling. NODE=S041CQ7;LINKAGE=A

$A_{CP}(B^+ \to K^*_0(1430)^+ \pi^0)$

NODE=S041A05
NODE=S041A05

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.26 \pm 0.12 {}^{+0.14}_{-0.08}}$	[1] LEES	17G	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Obtains the result from a Dalitz analysis of $B^+ \to K^0_S \pi^+ \pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling. NODE=S041A05;LINKAGE=A

$A_{CP}(B^+ \to K^*_2(1430)^0 \pi^+)$

NODE=S041CS4
NODE=S041CS4

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.05 \pm 0.23 {}^{+0.18}_{-0.08}}$	AUBERT	08AI	BABR	$e^+ e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to K^+ \pi^0 \pi^0)$

NODE=S041CU4
NODE=S041CU4

VALUE	DOCUMENT ID		TECN	COMMENT
−0.06±0.06±0.04	LEES	11I	BABR	$e^+ e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to K^0 \rho^+)$

NODE=S041CR9
NODE=S041CR9

VALUE	DOCUMENT ID		TECN	COMMENT
−0.03±0.15 OUR AVERAGE				
$0.21 \pm 0.19 {}^{+0.24}_{-0.20}$	[1] LEES	17G	BABR	$e^+ e^- \to \Upsilon(4S)$
−0.12±0.17±0.02	AUBERT	07Z	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Obtains the result from a Dalitz analysis of$B^+ \to K^0_S \pi^+ \pi^0$ decays. The first error is statistical, the second combines all the systematic uncertainties reported in the paper, including signal modelling. NODE=S041CR9;LINKAGE=A

$A_{CP}(B^+ \to K^{*+} \pi^+ \pi^-)$

NODE=S041AKP
NODE=S041AKP

VALUE	DOCUMENT ID		TECN	COMMENT
0.07±0.07±0.04	AUBERT,B	06U	BABR	$e^+ e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \rho^0 K^*(892)^+)$

NODE=S041AZ1
NODE=S041AZ1

VALUE	DOCUMENT ID		TECN	COMMENT
0.31±0.13±0.03	DEL-AMO-SA..11D		BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.20 {}^{+0.32}_{-0.29} \pm 0.04$	AUBERT	03V	BABR	Repl. by DEL-AMO-SANCHEZ 11D

$A_{CP}(B^+ \to K^*(892)^+ f_0(980))$

NODE=S041CR3

VALUE	DOCUMENT ID	TECN	COMMENT
−0.15±0.12±0.03	DEL-AMO-SA..11D	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
−0.34±0.21±0.03	AUBERT,B 06G	BABR	Repl. by DEL-AMO-SANCHEZ 11D

$A_{CP}(B^+ \to a_1^+ K^0)$

NODE=S041CS1

VALUE	DOCUMENT ID	TECN	COMMENT
+0.12±0.11±0.02	AUBERT 08F	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to b_1^+ K^0)$

NODE=S041CS6

VALUE	DOCUMENT ID	TECN	COMMENT
−0.03±0.15±0.02	AUBERT 08AG	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to K^*(892)^0 \rho^+)$

NODE=S041CR4

VALUE	DOCUMENT ID	TECN	COMMENT
−0.01±0.16±0.02	AUBERT,B 06G	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to b_1^0 K^+)$

NODE=S041CS2

VALUE	DOCUMENT ID	TECN	COMMENT
−0.46±0.20±0.02	AUBERT 07BI	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to K^0 K^+)$

NODE=S041CQ8

VALUE	DOCUMENT ID	TECN	COMMENT
0.04 ±0.14 OUR AVERAGE			
0.014±0.168±0.002	DUH 13	BELL	$e^+e^- \to \Upsilon(4S)$
0.10 ±0.26 ±0.03	[1] AUBERT,BE 06C	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.13 $^{+0.23}_{-0.24}$ ±0.02	LIN 07	BELL	Repl. by DUH 13
0.15 ±0.33 ±0.03	[2] AUBERT,BE 05E	BABR	Repl. by AUBERT,BE 06C

[1] Corresponds to 90% confidence range $-0.31 < A_{CP} < 0.54$.

NODE=S041CQ8;LINKAGE=AE

[2] Corresponds to 90% confidence range $-0.43 < A_{CP} < 0.68$.

NODE=S041CQ8;LINKAGE=AU

$A_{CP}(B^+ \to K_S^0 K^+)$

NODE=S041CQA

VALUE	DOCUMENT ID	TECN	COMMENT
−0.21±0.14±0.01	AAIJ 13BS	LHCB	pp at 7 TeV

$A_{CP}(B^+ \to K^+ K_S^0 K_S^0)$

NODE=S041AY8

VALUE	DOCUMENT ID	TECN	COMMENT
0.025±0.031 OUR AVERAGE			
0.016±0.039±0.009	KALIYAR 19	BELL	$e^+e^- \to \Upsilon(4S)$
0.04 $^{+0.04}_{-0.05}$ ±0.02	LEES 12O	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
−0.04 ±0.11 ±0.02	[1] AUBERT,B 04V	BABR	Repl. by LEES 12O

[1] Corresponds to 90% confidence range $-0.23 < A_{CP} < 0.15$.

NODE=S041AY8;LINKAGE=AU

$A_{CP}(B^+ \to K^+ K^- \pi^+)$

NODE=S041CKK

VALUE	DOCUMENT ID	TECN	COMMENT
−0.115±0.008 OUR AVERAGE			
−0.114±0.007±0.004	[1] AAIJ 23U	LHCB	pp at 13 TeV
−0.170±0.073±0.017	[2] HSU 17	BELL	$e^+e^- \to \Upsilon(4S)$
−0.123±0.017±0.014	[1] AAIJ 14BO	LHCB	pp at 7, 8 TeV
0.00 ±0.10 ±0.03	AUBERT 07BB	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
−0.141±0.040±0.019	[3] AAIJ 14	LHCB	Repl. by AAIJ 14BO

[1] The second error includes both systematics and the uncertainties from CP asymmetries in restricted regions of phase space.

NODE=S041CKK;LINKAGE=A

[2] HSU 17 provides also measurement as a function of $K^+ K^-$ invariant mass.

NODE=S041CKK;LINKAGE=B

[3] AAIJ 14 reports $A_{CP}(B^+ \to K^+ K^- \pi^+) = -0.648 \pm 0.070 \pm 0.013 \pm 0.007$ in the Dalitz plot region of $m^2_{K^+K^-} < 1.5$ GeV^2/c^4. The third uncertainty is due to the CP asymmetry of the $B^\pm \to J/\psi K^\pm$ reference mode uncertainty.

NODE=S041CKK;LINKAGE=AA

$A_{CP}(B^+ \to K^+ K^- \pi^+$ nonresonant)

NODE=S041A18

VALUE	DOCUMENT ID		TECN	COMMENT
$-0.107 \pm 0.053 \pm 0.035$	[1] AAIJ	19AL	LHCB	pp at 7, 8 TeV

[1] Uses amplitude analysis of $B^\pm \to \pi^\pm K^+ K^-$ decays. NODE=S041A18;LINKAGE=A

$A_{CP}(B^+ \to \pi^+ K^+ K^-,\ m_{K^+K^-} < 1.1$ GeV)

NODE=S041A82

VALUE	DOCUMENT ID		TECN	COMMENT
$-0.170 \pm 0.073 \pm 0.017$	[1] HSU	23	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Investigated the angular distribution of $K^+ K^-$ pairs with invariant mass below 1.1 GeV/c^2, which exhibits both a strong enhancement in signal and very large direct CP violation. NODE=S041A82;LINKAGE=A

$A_{CP}(B^+ \to K^+ \overline{K}^*(892)^0)$

NODE=S041A12

VALUE	DOCUMENT ID		TECN	COMMENT
0.04 ±0.05 OUR AVERAGE				
$0.007 \pm 0.054 \pm 0.032$	AAIJ	23V	LHCB	pp at 13 TeV
$0.123 \pm 0.087 \pm 0.045$	[1] AAIJ	19AL	LHCB	pp at 7, 8 TeV

[1] Uses amplitude analysis of $B^\pm \to \pi^\pm K^+ K^-$ decays. NODE=S041A12;LINKAGE=A

$A_{CP}(B^+ \to K^+ \overline{K}{}^*_0(1430)^0)$

NODE=S041A13

VALUE	DOCUMENT ID		TECN	COMMENT
$0.104 \pm 0.149 \pm 0.088$	[1] AAIJ	19AL	LHCB	pp at 7, 8 TeV

[1] Uses amplitude analysis of $B^\pm \to \pi^\pm K^+ K^-$ decays. NODE=S041A13;LINKAGE=A

$A_{CP}(B^+ \to \phi \pi^+)$

NODE=S041A14

VALUE	DOCUMENT ID		TECN	COMMENT
$0.098 \pm 0.436 \pm 0.266$	[1] AAIJ	19AL	LHCB	pp at 7, 8 TeV

[1] Uses amplitude analysis of $B^\pm \to \pi^\pm K^+ K^-$ decays. NODE=S041A14;LINKAGE=B

$A_{CP}(B^+ \to \pi^+ (K^+ K^-)_{S-wave})$

NODE=S041A17

VALUE	DOCUMENT ID		TECN	COMMENT
$-0.664 \pm 0.038 \pm 0.019$	[1] AAIJ	19AL	LHCB	pp at 7, 8 TeV

[1] Uses amplitude analysis of $B^\pm \to \pi^\pm K^+ K^-$ decays in the $\pi\pi - KK$ rescattering mass region of $0.95 < m(K^+ K^-) < 1.42$ GeV/c^2. NODE=S041A17;LINKAGE=A

$A_{CP}(B^+ \to K^+ K^- K^+)$

NODE=S041AY7

VALUE	DOCUMENT ID		TECN	COMMENT
-0.036 ± 0.004 OUR AVERAGE				
$-0.037 \pm 0.002 \pm 0.004$	[1] AAIJ	23U	LHCB	pp at 13 TeV
$-0.036 \pm 0.004 \pm 0.007$	[1] AAIJ	14BO	LHCB	pp at 7, 8 TeV
$-0.017^{+0.019}_{-0.014} \pm 0.014$	[2] LEES	12O	BABR	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$-0.043 \pm 0.009 \pm 0.008$	AAIJ	13AZ	LHCB	Repl. by AAIJ 14BO
$-0.017 \pm 0.026 \pm 0.015$	AUBERT	06O	BABR	Repl. by LEES 12O
$0.02 \pm 0.07 \pm 0.03$	AUBERT	03M	BABR	Repl. by AUBERT 06O

[1] The second error includes both systematics and the uncertainties from CP asymmetries in restricted regions of phase space. NODE=S041AY7;LINKAGE=A

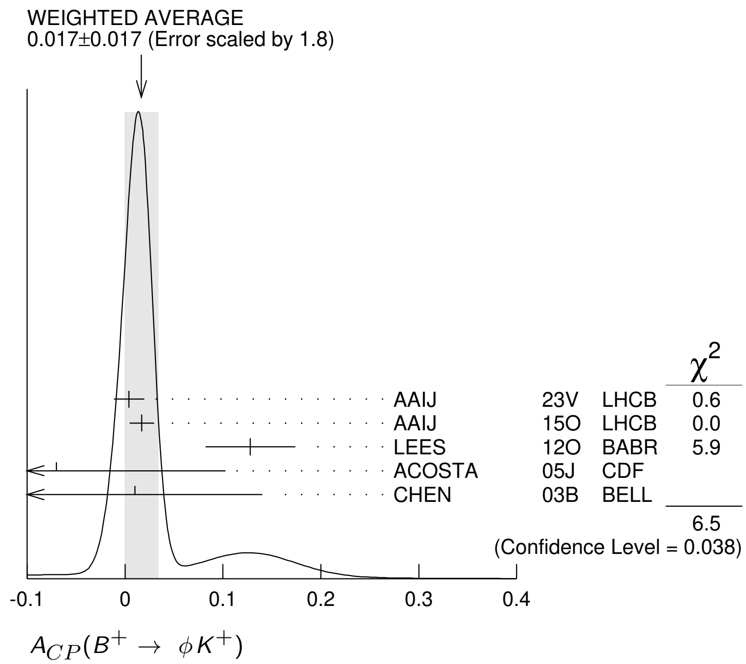
[2] All intermediate charmonium and charm resonances are removed, except of χ_{c0}. NODE=S041AY7;LINKAGE=LE

$A_{CP}(B^+ \to \phi K^+)$

NODE=S041AX7

VALUE	DOCUMENT ID		TECN	COMMENT
0.017 ± 0.017 OUR AVERAGE Error includes scale factor of 1.8. See the ideogram below.				
$0.004 \pm 0.014 \pm 0.007$	AAIJ	23V	LHCB	pp at 13 TeV
$0.017 \pm 0.011 \pm 0.006$	[1] AAIJ	15O	LHCB	pp at 7, 8 TeV
$0.128 \pm 0.044 \pm 0.013$	LEES	12O	BABR	$e^+ e^- \to \Upsilon(4S)$
$-0.07 \pm 0.17 {}^{+0.03}_{-0.02}$	ACOSTA	05J	CDF	$p\overline{p}$ at 1.96 TeV
$0.01 \pm 0.12 \pm 0.05$	[2] CHEN	03B	BELL	$e^+ e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.022 \pm 0.021 \pm 0.009$	AAIJ	14A	LHCB	Repl. by AAIJ 15O
$0.00 \pm 0.08 \pm 0.02$	AUBERT	06O	BABR	Repl. by LEES 12O
$0.04 \pm 0.09 \pm 0.01$	[3] AUBERT	04A	BABR	Repl. by AUBERT 06O
$-0.05 \pm 0.20 \pm 0.03$	[4] AUBERT	02E	BABR	$e^+ e^- \to \Upsilon(4S)$

[1] Obtained using $A_{CP}(B^{\pm} \rightarrow J/\psi K^{\pm}) = (0.3 \pm 0.6) \times 10^{-2}$. NODE=S041AX7;LINKAGE=A
[2] Corresponds to 90% confidence range $-0.20 < A_{CP} < 0.22$. NODE=S041AX7;LINKAGE=CH
[3] Corresponds to 90% confidence range $-0.10 < A_{CP} < 0.18$. NODE=S041AX7;LINKAGE=AU
[4] Corresponds to 90% confidence range $-0.37 < A_{CP} < 0.28$. NODE=S041AX7;LINKAGE=AY



$A_{CP}(B^+ \rightarrow X_0(1550) K^+)$

NODE=S041CXK

VALUE	DOCUMENT ID		TECN	COMMENT
−0.04±0.07±0.02	[1] AUBERT	06O	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

[1] Measured in the $B^+ \rightarrow K^+ K^- K^+$ decay. NODE=S041CXK;LINKAGE=AU

$A_{CP}(B^+ \rightarrow K^{*+} K^+ K^-)$

NODE=S041AKK

VALUE	DOCUMENT ID		TECN	COMMENT
0.11±0.08±0.03	AUBERT,B	06U	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

$A_{CP}(B^+ \rightarrow \phi K^*(892)^+)$

NODE=S041AX8

VALUE	DOCUMENT ID		TECN	COMMENT
−0.01±0.08 OUR AVERAGE				
0.00±0.09±0.04	AUBERT	07BA	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$
−0.02±0.14±0.03	[1] CHEN	05A	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.16±0.17±0.03	AUBERT	03V	BABR	Repl. by AUBERT 07BA
$-0.13 \pm 0.29^{+0.08}_{-0.11}$	[2] CHEN	03B	BELL	Repl. by CHEN 05A
$-0.43^{+0.36}_{-0.30} \pm 0.06$	[3] AUBERT	02E	BABR	Repl. by AUBERT 03V

[1] Corresponds to 90% confidence range $-0.25 < A_{CP} < 0.22$. NODE=S041AX8;LINKAGE=CE
[2] Corresponds to 90% confidence range $-0.64 < A_{CP} < 0.36$. NODE=S041AX8;LINKAGE=CH
[3] Corresponds to 90% confidence range $-0.88 < A_{CP} < 0.18$. NODE=S041AX8;LINKAGE=AY

$A_{CP}(B^+ \rightarrow \phi (K\pi)^{*+}_0)$

NODE=S041CT1

VALUE	DOCUMENT ID		TECN	COMMENT
0.04±0.15±0.04	AUBERT	08BI	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

$A_{CP}(B^+ \rightarrow \phi K_1(1270)^+)$

NODE=S041CS8

VALUE	DOCUMENT ID		TECN	COMMENT
0.15±0.19±0.05	AUBERT	08BI	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

$A_{CP}(B^+ \rightarrow \phi K^*_2(1430)^+)$

NODE=S041CS9

VALUE	DOCUMENT ID		TECN	COMMENT
−0.23±0.19±0.06	AUBERT	08BI	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$

$A_{CP}(B^+ \to K^+\phi\phi)$ NODE=S041CT9

VALUE	DOCUMENT ID		TECN	COMMENT
−0.08±0.07 OUR AVERAGE				
−0.02±0.11±0.11	[1] MOHANTY	21	BELL	$e^+e^- \to \Upsilon(4S)$
−0.10±0.08±0.02	[1] LEES	11A	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Assumes $m_{\phi\phi} < 2.85$ GeV/c^2. NODE=S041CT9;LINKAGE=A

$A_{CP}(B^+ \to K^+[\phi\phi]_{\eta_c})$ NODE=S041CTB

VALUE	DOCUMENT ID		TECN	COMMENT
0.10±0.08 OUR AVERAGE				
0.12±0.12±0.01	[1] MOHANTY	21	BELL	$e^+e^- \to \Upsilon(4S)$
0.09±0.10±0.02	[1] LEES	11A	BABR	$e^+e^- \to \Upsilon(4S)$

[1] $m_{\phi\phi}$ is consistent with η_c mass in [2.94, 3.02] GeV/c^2. NODE=S041CTB;LINKAGE=LE

$A_{CP}(B^+ \to K^*(892)^+\gamma)$ NODE=S041AKG

VALUE	DOCUMENT ID		TECN	COMMENT
0.014±0.018 OUR AVERAGE				
0.011±0.023±0.003	[1] HORIGUCHI	17	BELL	$e^+e^- \to \Upsilon(4S)$
0.018±0.028±0.007	AUBERT	09AO	BABR	$e^+e^- \to \Upsilon(4S)$

[1] Uses B($\Upsilon(4S) \to B^+B^-$) = (51.4 ± 0.6)% and B($\Upsilon(4S) \to B^0\overline{B}^0$) = (48.6 ± 0.6)%. NODE=S041AKG;LINKAGE=A

$A_{CP}(B^+ \to X_s\gamma)$ NODE=S041A11

VALUE	DOCUMENT ID		TECN	COMMENT
0.0275±0.0184±0.0032	[1] WATANUKI	19	BELL	$e^+e^- \to \Upsilon(4S)$

[1] Using a sum-of-exclusive technique with $m_{X_s} < 2.8$ GeV/c^2. NODE=S041A11;LINKAGE=A

$A_{CP}(B^+ \to \eta K^+\gamma)$ NODE=S041CQ3

VALUE	DOCUMENT ID		TECN	COMMENT
−0.12±0.07 OUR AVERAGE				
−0.09±0.10±0.01	[1] AUBERT	09	BABR	$e^+e^- \to \Upsilon(4S)$
−0.16±0.09±0.06	[2] NISHIDA	05	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.09±0.12±0.01	[1] AUBERT,B	06M	BABR	Repl. by AUBERT 09

[1] $m_{\eta K} < 3.25$ GeV/c^2. NODE=S041CQ3;LINKAGE=AR

[2] $m_{\eta K} < 2.4$ GeV/c^2 NODE=S041CQ3;LINKAGE=NI

$A_{CP}(B^+ \to \phi K^+\gamma)$ NODE=S041APK

VALUE	DOCUMENT ID		TECN	COMMENT
−0.13±0.11 OUR AVERAGE Error includes scale factor of 1.1.				
−0.03±0.11±0.08	SAHOO	11A	BELL	$e^+e^- \to \Upsilon(4S)$
−0.26±0.14±0.05	AUBERT	07Q	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \rho^+\gamma)$ NODE=S041CS7

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
− 9 ±14 OUR AVERAGE				
[−0.11 ± 0.33 OUR 2025 AVERAGE] NEW				
− 8.2±15.2$^{+2.0}_{-1.3}$	ADACHI	25G	BELL	$e^+e^- \to \Upsilon(4S)$
−11 ±32 ±9	TANIGUCHI	08	BELL	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \pi^+\pi^0)$ NODE=S041AX0

VALUE	DOCUMENT ID		TECN	COMMENT
−0.01 ±0.04 OUR AVERAGE Error includes scale factor of 1.1.				
−0.081±0.054±0.008	ADACHI	24	BELL	$e^+e^- \to \Upsilon(4S)$
0.025±0.043±0.007	DUH	13	BELL	$e^+e^- \to \Upsilon(4S)$
0.03 ±0.08 ±0.01	AUBERT	07BC	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.07 ±0.06 ±0.01	LIN	08	BELL	Repl. by DUH 13
−0.01 ±0.10 ±0.02	[1] AUBERT	05L	BABR	Repl. by AUBERT 07BC
0.00 ±0.10 ±0.02	[2] CHAO	05A	BELL	Repl. by CHAO 04B
−0.02 ±0.10 ±0.01	[3] CHAO	04B	BELL	Repl. by LIN 08
−0.03 $^{+0.18}_{-0.17}$ ±0.02	[4] AUBERT	03L	BABR	Repl. by AUBERT 05L
0.30 ±0.30 $^{+0.06}_{-0.04}$	[5] CASEY	02	BELL	Repl. by CHAO 04B

[1] Corresponds to a 90% CL interval of $-0.19 < A_{CP} < 0.21$. NODE=S041AX0;LINKAGE=AU
[2] Corresponds to a 90% CL interval of $-0.17 < A_{CP} < 0.16$. NODE=S041AX0;LINKAGE=CO
[3] This corresponds to 90% CL interval of $-0.18 < A_{CP} < 0.14$. NODE=S041AX0;LINKAGE=CH
[4] Corresponds to 90% confidence range $-0.32 < A_{CP} < 0.27$. NODE=S041AX0;LINKAGE=3L
[5] Corresponds to 90% confidence range $-0.23 < A_{CP} < +0.86$. NODE=S041AX0;LINKAGE=CA

$A_{CP}(B^+ \to \pi^+\pi^-\pi^+)$

NODE=S041AY5
NODE=S041AY5

VALUE	DOCUMENT ID	TECN	COMMENT
0.076±0.008 OUR AVERAGE Error includes scale factor of 1.5.			
$0.080 \pm 0.004 \pm 0.004$	[1] AAIJ 23U	LHCB	pp at 13 TeV
$0.058 \pm 0.008 \pm 0.011$	[1] AAIJ 14BO	LHCB	pp at 7, 8 TeV
$0.032 \pm 0.044 {}^{+0.040}_{-0.037}$	AUBERT 09L	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.117 \pm 0.021 \pm 0.011$	[2] AAIJ 14	LHCB	Repl. by AAIJ 14BO
$-0.007 \pm 0.077 \pm 0.025$	AUBERT,B 05G	BABR	Repl. by AUBERT 09L
$-0.39 \pm 0.33 \pm 0.12$	AUBERT 03M	BABR	Repl. by AUBERT 05G

[1] The second error includes both systematics and the uncertainties from CP asymmetries in restricted regions of phase space. NODE=S041AY5;LINKAGE=A
[2] AAIJ 14 reports $A_{CP}(B^+ \to \pi^+\pi^-\pi^+) = 0.584 \pm 0.082 \pm 0.027 \pm 0.007$ in the Dalitz plot region of $m^2_{\pi^+\pi^-} > 15$ GeV^2/c^4 or $m^2_{\pi^+\pi^-} < 0.4$ GeV^2/c^4. The third uncertainty is due to the CP asymmetry of the $B^\pm \to J/\psi K^\pm$ reference mode uncertainty. NODE=S041AY5;LINKAGE=AA

$A_{CP}(B^+ \to \pi^+\pi^0\pi^0)$

NODE=S041A77
NODE=S041A77

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
9.2±6.8±0.7	LAI 23	BELL	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \rho^0\pi^+)$

NODE=S041CP4
NODE=S041CP4

VALUE	DOCUMENT ID	TECN	COMMENT
0.003±0.014 OUR AVERAGE			
$-0.004 \pm 0.017 \pm 0.009$	AAIJ 23V	LHCB	pp at 13 TeV
$0.007 \pm 0.011 \pm 0.016$	[1] AAIJ 20A	LHCB	pp at 7, 8 TeV
$0.18 \pm 0.07 {}^{+0.05}_{-0.15}$	AUBERT 09L	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$-0.074 \pm 0.120 {}^{+0.035}_{-0.055}$	AUBERT,B 05G	BABR	Repl. by AUBERT 09L
$-0.19 \pm 0.11 \pm 0.02$	AUBERT 04Z	BABR	Repl. by AUBERT,B 05G

[1] This result is obtained with an amplitude analysis of $B^+ \to \pi^+\pi^+\pi^-$ decays, using the isobar model within the mass range $1.0 < m(\pi^+\pi^-) < 1.5$ GeV to describe the $\pi^+\pi^-$ S-wave contribution. NODE=S041CP4;LINKAGE=A

$A_{CP}(B^+ \to f_2(1270)\pi^+)$

NODE=S041CQ0
NODE=S041CQ0

VALUE	DOCUMENT ID	TECN	COMMENT
0.40 ±0.06 OUR AVERAGE			
$0.468 \pm 0.061 \pm 0.046$	[1] AAIJ 20A	LHCB	pp at 7, 8 TeV
$0.267 \pm 0.102 \pm 0.048$	[2] AAIJ 19AL	LHCB	pp at 7, 8 TeV
$0.41 \pm 0.25 {}^{+0.18}_{-0.15}$	AUBERT 09L	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$-0.004 \pm 0.247 {}^{+0.028}_{-0.032}$	AUBERT,B 05G	BABR	Repl. by AUBERT 09L

[1] This result is obtained with an amplitude analysis of $B^+ \to \pi^+\pi^+\pi^-$ decays, using the isobar model within the mass range $1.0 < m(\pi^+\pi^-) < 1.5$ GeV to describe the $\pi^+\pi^-$ S-wave contribution. NODE=S041CQ0;LINKAGE=B
[2] Uses amplitude analysis of $B^\pm \to \pi^\pm K^+K^-$ decays. NODE=S041CQ0;LINKAGE=A

$A_{CP}(B^+ \to \rho^0(1450)\pi^+)$

NODE=S041CT4
NODE=S041CT4

VALUE	DOCUMENT ID	TECN	COMMENT
−0.11 ±0.05 OUR AVERAGE			
$-0.129 \pm 0.033 \pm 0.359$	[1] AAIJ 20A	LHCB	pp at 7, 8 TeV
$-0.109 \pm 0.044 \pm 0.024$	[2] AAIJ 19AL	LHCB	pp at 7, 8 TeV
$-0.06 \pm 0.28 {}^{+0.23}_{-0.40}$	AUBERT 09L	BABR	$e^+e^- \to \Upsilon(4S)$

[1] This result is obtained with an amplitude analysis of $B^+ \to \pi^+\pi^+\pi^-$ decays, using the isobar model within the mass range $1.0 < m(\pi^+\pi^-) < 1.5$ GeV to describe the $\pi^+\pi^-$ S-wave contribution. NODE=S041CT4;LINKAGE=B
[2] Uses amplitude analysis of $B^\pm \to \pi^\pm K^+K^-$ decays. NODE=S041CT4;LINKAGE=A

$A_{CP}(B^+ \to \rho_3(1690)\pi^+)$

NODE=S041A16

VALUE		DOCUMENT ID		TECN	COMMENT
−0.801±0.114±0.253	[1]	AAIJ	20A	LHCB	pp at 7, 8 TeV

[1] This result is obtained with an amplitude analysis of $B^+ \to \pi^+\pi^+\pi^-$ decays, using the isobar model within the mass range $1.0 < m(\pi^+\pi^-) < 1.5$ GeV to describe the $\pi^+\pi^-$ S-wave contribution.

NODE=S041A16;LINKAGE=A

$A_{CP}(B^+ \to f_0(1370)\pi^+)$

NODE=S041CT5

VALUE	DOCUMENT ID		TECN	COMMENT
0.72±0.15±0.16	AUBERT	09L	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \pi^+\pi^-\pi^+$ nonresonant$)$

NODE=S041CT6

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{-0.14\pm0.14^{+0.18}_{-0.08}}$	AUBERT	09L	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \rho^+\pi^0)$

NODE=S041CP5

VALUE	DOCUMENT ID		TECN	COMMENT
0.03 ±0.10 OUR AVERAGE				
$0.080\pm0.150^{+0.023}_{-0.075}$	LAI	23	BELL	$e^+e^- \to \Upsilon(4S)$
−0.01 ±0.13 ±0.02	AUBERT	07X	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.06\pm0.17^{+0.04}_{-0.05}$	ZHANG	05A	BELL	Repl. by LAI 23
0.24 ±0.16 ±0.06	AUBERT	04Z	BABR	Repl. by AUBERT 07X

$A_{CP}(B^+ \to X\pi^+,\ X \to \pi^0\pi^0)$

NODE=S041A85

VALUE	DOCUMENT ID		TECN	COMMENT
0.182±0.116±0.007	LAI	23	BELL	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to \rho^+\rho^0)$

NODE=S041AY9

VALUE	DOCUMENT ID		TECN	COMMENT
−0.05 ±0.05 OUR AVERAGE				
−0.054±0.055±0.010	AUBERT	09G	BABR	$e^+e^- \to \Upsilon(4S)$
0.00 ±0.22 ±0.03	ZHANG	03B	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.12 ±0.13 ±0.10	AUBERT,BE	06G	BABR	Repl. by AUBERT 09G
−0.19 ±0.23 ±0.03	AUBERT	03V	BABR	Repl. by AUBERT,BE 06G

$A_{CP}(B^+ \to \omega\pi^+)$

NODE=S041AX6

VALUE		DOCUMENT ID		TECN	COMMENT
−0.04 ±0.05 OUR AVERAGE					
−0.048±0.065±0.038	[1]	AAIJ	20A	LHCB	pp at 7, 8 TeV
−0.02 ±0.08 ±0.01		AUBERT	07AE	BABR	$e^+e^- \to \Upsilon(4S)$
−0.02 ±0.09 ±0.01		JEN	06	BELL	$e^+e^- \to \Upsilon(4S)$
−0.34 ±0.25	[2]	CHEN	00	CLE2	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
−0.01 ±0.10 ±0.01		AUBERT,B	06E	BABR	Repl. by AUBERT 07AE
0.03 ±0.16 ±0.01		AUBERT	04H	BABR	Repl. by AUBERT,B 06E
$0.50^{+0.23}_{-0.20}\pm0.02$	[3]	WANG	04A	BELL	Repl. by JEN 06
$-0.01^{+0.29}_{-0.31}\pm0.03$	[4]	AUBERT	02E	BABR	Repl. by AUBERT 04H

[1] This result is obtained with an amplitude analysis of $B^+ \to \pi^+\pi^+\pi^-$ decays, using the isobar model within the mass range $1.0 < m(\pi^+\pi^-) < 1.5$ GeV to describe the $\pi^+\pi^-$ S-wave contribution.

NODE=S041AX6;LINKAGE=B

[2] Corresponds to 90% confidence range $-0.75 < A_{CP} < 0.07$.

NODE=S041AX6;LINKAGE=A

[3] Corresponds to 90% CL interval $-0.25 < A_{CP} < 0.41$

NODE=S041AX6;LINKAGE=WA

[4] Corresponds to 90% confidence range $-0.50 < A_{CP} < 0.46$.

NODE=S041AX6;LINKAGE=AY

$A_{CP}(B^+ \to \omega\rho^+)$

NODE=S041CP9

VALUE	DOCUMENT ID		TECN	COMMENT
−0.20±0.09±0.02	AUBERT	09H	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.04±0.18±0.02	AUBERT,B	06T	BABR	Repl. by AUBERT 09H
0.05±0.26±0.02	AUBERT	05O	BABR	Repl. by AUBERT,B 06T

$A_{CP}(B^+ \to \eta\pi^+)$ NODE=S041CP2

NODE=S041CP2

VALUE	DOCUMENT ID	TECN	COMMENT
−0.14±0.07 OUR AVERAGE Error includes scale factor of 1.4.			
−0.19±0.06±0.01	HOI 12	BELL	$e^+e^- \to \Upsilon(4S)$
−0.03±0.09±0.03	AUBERT 09AV	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
−0.08±0.10±0.01	AUBERT 07AE	BABR	Repl. by AUBERT 09AV
−0.23±0.09±0.02	CHANG 07B	BELL	Repl. by HOI 12
−0.13±0.12±0.01	AUBERT,B 05K	BABR	Repl. by AUBERT 07AE
0.07±0.15±0.03	CHANG 05A	BELL	Repl. by CHANG 07B
−0.44±0.18±0.01	AUBERT 04H	BABR	Repl. by AUBERT,B 05K

$A_{CP}(B^+ \to \eta\rho^+)$ NODE=S041CQ2

NODE=S041CQ2

VALUE	DOCUMENT ID	TECN	COMMENT
0.11±0.11 OUR AVERAGE			
0.13±0.11±0.02	AUBERT 08AH	BABR	$e^+e^- \to \Upsilon(4S)$
$-0.04^{+0.34}_{-0.32}\pm0.01$	WANG 07B	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.02±0.18±0.02	AUBERT,B 05K	BABR	Repl. by AUBERT 08AH

$A_{CP}(B^+ \to \eta'\pi^+)$ NODE=S041CQ1

NODE=S041CQ1

VALUE	DOCUMENT ID	TECN	COMMENT
0.06±0.16 OUR AVERAGE			
0.03±0.17±0.02	AUBERT 09AV	BABR	$e^+e^- \to \Upsilon(4S)$
$0.20^{+0.37}_{-0.36}\pm0.04$	SCHUEMANN 06	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.21±0.17±0.01	AUBERT 07AE	BABR	Repl. by AUBERT 09AV
0.14±0.16±0.01	AUBERT,B 05K	BABR	Repl. by AUBERT 07AE

$A_{CP}(B^+ \to \eta'\rho^+)$ NODE=S041CR8

NODE=S041CR8

VALUE	DOCUMENT ID	TECN	COMMENT
0.26±0.17±0.02	DEL-AMO-SA...10A	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.04±0.28±0.02	[1] AUBERT 07E	BABR	Repl. by DEL-AMO-SANCHEZ 10A

[1] Reports A_{CP} with the opposite sign convention. NODE=S041CR8;LINKAGE=OS

$A_{CP}(B^+ \to b_1^0\pi^+)$ NODE=S041CS3

NODE=S041CS3

VALUE	DOCUMENT ID	TECN	COMMENT
+0.05±0.16±0.02	AUBERT 07BI	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to p\overline{p}\pi^+)$ NODE=S041CP6

NODE=S041CP6

NEW

VALUE	DOCUMENT ID	TECN	COMMENT
0.021±0.030 OUR AVERAGE [0.00 ± 0.04 OUR 2025 AVERAGE]			
0.039±0.039±0.005	[1] AAIJ 14AF	LHCB	pp at 7, 8 TeV
−0.02 ±0.05 ±0.02	[1] WEI 08	BELL	$e^+e^- \to \Upsilon(4S)$
+0.04 ±0.07 ±0.04	AUBERT 07AV	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
−0.16 ±0.22 ±0.01	WANG 04	BELL	Repl. by WEI 08

[1] Requires $m_{p\overline{p}} < 2.85$ GeV/c^2. NODE=S041CP6;LINKAGE=WE

$A_{CP}(B^+ \to p\overline{p}K^+)$ NODE=S041CP7

NODE=S041CP7

NEW

VALUE	DOCUMENT ID	TECN	COMMENT
−0.02 ±0.04 OUR AVERAGE Error includes scale factor of 1.9. [0.00 ± 0.04 OUR 2025 AVERAGE Scale factor = 2.2]			
−0.006±0.020±0.004	[1] AAIJ 14AF	LHCB	pp at 7, 8 TeV
−0.17 ±0.10 ±0.02	[1] WEI 08	BELL	$e^+e^- \to \Upsilon(4S)$
$-0.16\ ^{+0.07}_{-0.08}\ \pm0.04$	[1] AUBERT,B 05L	BABR	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
−0.047±0.036±0.007	[1] AAIJ 13AU	LHCB	Repl. by AAIJ 14AF
−0.05 ±0.11 ±0.01	WANG 04	BELL	Repl. by WEI 08

[1] Requires $m_{p\overline{p}} < 2.85$ GeV/c^2. NODE=S041CP7;LINKAGE=WE

$A_{CP}(B^+ \to p\overline{p}K^*(892)^+)$

NODE=S041AW6

VALUE	DOCUMENT ID		TECN	COMMENT
0.21±0.16 OUR AVERAGE	Error includes scale factor of 1.4.			
−0.01±0.19±0.02	CHEN	08C	BELL	$e^+e^- \to \Upsilon(4S)$
+0.32±0.13±0.05	AUBERT	07AV	BABR	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to p\overline{\Lambda}\gamma)$

NODE=S041CLG

VALUE	DOCUMENT ID		TECN	COMMENT
+0.17±0.16±0.05	WANG	07C	BELL	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to p\overline{\Lambda}\pi^0)$

NODE=S041CS0

VALUE	DOCUMENT ID		TECN	COMMENT
+0.01±0.17±0.04	WANG	07C	BELL	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to K^+\ell^+\ell^-)$

NODE=S041CR1

VALUE	DOCUMENT ID		TECN	COMMENT
−0.02±0.08 OUR AVERAGE				
−0.03±0.14±0.01	[1] LEES	12S	BABR	$e^+e^- \to \Upsilon(4S)$
−0.18±0.18±0.01	AUBERT	09T	BABR	$e^+e^- \to \Upsilon(4S)$
+0.04±0.10±0.02	WEI	09A	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.07±0.22±0.02	AUBERT,B	06J	BABR	Repl. by AUBERT 09T

[1] Measured in the union of $0.10 < q^2 < 8.12$ GeV^2/c^4 and $q^2 > 10.11$ GeV^2/c^4. LEES 12S reports also individual measurements $A_{CP}(B^+ \to K^+\ell^+\ell^-) = 0.02 \pm 0.18 \pm 0.01$ for $0.10 < q^2 < 8.12$ GeV^2/c^4 and $A_{CP}(B^+ \to K^+\ell^+\ell^-) = -0.06^{+0.22}_{-0.21} \pm 0.01$ for $q^2 > 10.11$ GeV^2/c^4.

NODE=S041CR1;LINKAGE=LE

$A_{CP}(B^+ \to K^+e^+e^-)$

NODE=S041CU0

VALUE	DOCUMENT ID		TECN	COMMENT
+0.14±0.14±0.03	WEI	09A	BELL	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to K^+\mu^+\mu^-)$

NODE=S041CU1

VALUE	DOCUMENT ID		TECN	COMMENT
0.011±0.017 OUR AVERAGE				
0.012±0.017±0.001	AAIJ	14AN	LHCB	pp at 7, 8 TeV
−0.05 ±0.13 ±0.03	WEI	09A	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.000±0.033±0.009	AAIJ	13BN	LHCB	Repl. by AAIJ 14AN

$A_{CP}(B^+ \to \pi^+\mu^+\mu^-)$

NODE=S041CU8

VALUE	DOCUMENT ID		TECN	COMMENT
−0.11±0.12±0.01	AAIJ	15AR	LHCB	pp at 7, 8 TeV

$A_{CP}(B^+ \to K^{*+}\ell^+\ell^-)$

NODE=S041CR2

VALUE	DOCUMENT ID		TECN	COMMENT
−0.09±0.14 OUR AVERAGE				
$0.01^{+0.26}_{-0.24}\pm0.02$	AUBERT	09T	BABR	$e^+e^- \to \Upsilon(4S)$
$-0.13^{+0.17}_{-0.16}\pm0.01$	WEI	09A	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.03±0.23±0.03	AUBERT,B	06J	BABR	Repl. by AUBERT 09T

$A_{CP}(B^+ \to K^*e^+e^-)$

NODE=S041CU2

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{-0.14^{+0.23}_{-0.22}\pm0.02}$	WEI	09A	BELL	$e^+e^- \to \Upsilon(4S)$

$A_{CP}(B^+ \to K^*\mu^+\mu^-)$

NODE=S041CU3

VALUE	DOCUMENT ID		TECN	COMMENT
−0.12±0.24±0.02	WEI	09A	BELL	$e^+e^- \to \Upsilon(4S)$

CP VIOLATION PARAMETERS IN $B^+ \to DK^+$ AND SIMILAR DECAYS

NODE=S041320

The parameters r_{B^+} and δ_{B^+} are the magnitude ratio and strong phase difference between the amplitudes of A($B^+ \to \overline{D}^{(*)0} K^{(*)+}$) and A($B^- \to D^{(*)0} K^{(*)-}$). The measured observables are defined as $x_\pm = r_{B^+} \cos(\delta_{B^+} \pm \gamma)$ and $y_\pm = r_{B^+} \sin(\delta_{B^+} \pm \gamma)$, and can be used to measure the CKM angle γ.

NODE=S041320

"OUR EVALUATION" is provided by the Heavy Flavor Averaging Group (HFLAV). It is derived from combinations of their results on $B^+ \to DK^+$ and related processes.

γ

NODE=S041GGM

For angle $\gamma(\phi_3)$ of the CKM unitarity triangle, see the review on "*CP* Violation" in the Reviews section.

NODE=S041GGM

NODE=S041GGM

VALUE (°)	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
$66.4^{+2.8}_{-3.0}$ OUR EVALUATION		(Produced by HFLAV)			
74 ± 6 OUR AVERAGE					
[(75 ± 8)° OUR 2025 AVERAGE]					
63 ±13		[1] AAIJ	25R	LHCB	pp at 7, 8, 13 TeV
81^{+12}_{-11}		[2,3] AAIJ	25T	LHCB	pp at 7, 8, 13 TeV
75.2± 7.6		[4] ADACHI	24T	BELL	$e^+e^- \to \Upsilon(4S)$)
• • • We do not use the following data for averages, fits, limits, etc. • • •					
74 ±12		[2] AAIJ	25T	LHCB	pp at 13 TeV
92^{+21}_{-17}		[5] AAIJ	24H	LHCB	pp at 7, 8, 13 TeV
49^{+22}_{-19}		[6] AAIJ	24U	LHCB	pp at 7, 8, 13 TeV
69^{+13}_{-14}		[7] AAIJ	23BA	LHCB	pp at 7, 8, 13 TeV
$54.8^{+6.0}_{-5.8}{}^{+6.7}_{-4.3}$		[8] AAIJ	23I	LHCB	pp at 7, 8, 13 TeV
116^{+12}_{-14}		[9] AAIJ	23N	LHCB	pp at 7, 8, 13 TeV
78.4±11.4± 1.1		[10,11] ABUDINEN	22	BELL	$e^+e^- \to \Upsilon(4S)$
$65.4^{+3.8}_{-4.2}$		[12] AAIJ	21AM	LHCB	pp at 7, 8, 13 TeV
$68.7^{+5.2}_{-5.1}$		[10] AAIJ	21L	LHCB	pp at 7, 8, 13 TeV
44 ±12		[13,14] AAIJ	21M	LHCB	pp at 7, 8, 13 TeV
$5.7^{+10.2}_{-8.8}$± 6.7		[15] RESMI	19	BELL	$e^+e^- \to \Upsilon(4S)$
87^{+11}_{-12}		[16] AAIJ	18AD	LHCB	Repl. by AAIJ 21L
128^{+17}_{-22}		[17] AAIJ	18U	LHCB	pp at 7, 8 TeV
5–86 or 185–266		[18] AAIJ	18Z	LHCB	pp at 7, 8 TeV
80^{+21}_{-22}		[19] AAIJ	16AA	LHCB	Repl. by AAIJ 16Z
$72.2^{+6.8}_{-7.3}$		[20] AAIJ	16AQ	LHCB	Repl. by AAIJ 21AM
71 ±20		[21,22,23] AAIJ	16Z	LHCB	Repl. by AAIJ 24U
74^{+20}_{-19}		AAIJ	15BC	LHCB	pp at 7, 8 TeV
$63.5^{+7.2}_{-6.7}$		[24,25] AAIJ	15K	LHCB	pp at 7, 8 TeV
62^{+15}_{-14}		[26] AAIJ	14BA	LHCB	Repl. by AAIJ 21L
84^{+49}_{-42}		[27] AAIJ	14BE	LHCB	Repl. by AAIJ 14BA
115^{+28}_{-43}		[28] AAIJ	14BF	LHCB	Repl. by AAIJ 18U
$72.6^{+9.7}_{-17.2}$		[29] AAIJ	13AK	LHCB	Repl. by AAIJ 21AM
69^{+17}_{-16}		[30] LEES	13B	BABR	$e^+e^- \to \Upsilon(4S)$
44^{+43}_{-38}		[31,32] AAIJ	12AQ	LHCB	Repl. by AAIJ 13AK
$77.3^{+15.1}_{-14.9}$± 5.9		[32,33] AIHARA	12	BELL	$e^+e^- \to \Upsilon(4S)$.
68 ±14 ± 5		[34] DEL-AMO-SA...	10F	BABR	Repl. by LEES 13B
7 to 173	95	[35] DEL-AMO-SA...	10G	BABR	$e^+e^- \to \Upsilon(4S)$

→ UNCHECKED ← NEW

OCCUR=2

$78.4^{+10.8}_{-11.6} \pm 9.6$	[36] POLUEKTOV	10	BELL	$e^+ e^- \rightarrow \Upsilon(4S)$	
162 ± 56	[37] AUBERT	09R	BABR	$e^+ e^- \rightarrow \Upsilon(4S)$	
$76 \ ^{+22}_{-23} \pm 7.1$	[38] AUBERT	08AL	BABR	Repl. by DEL-AMO-SANCHEZ 10F	
$53 \ ^{+15}_{-18} \pm 10$	[39] POLUEKTOV	06	BELL	Repl. by POLUEKTOV 10	
$70 \pm 31 \ ^{+18}_{-15}$	[40] AUBERT,B	05Y	BABR	Repl. by AUBERT 08AL	
$77 \ ^{+17}_{-19} \pm 17$	[41] POLUEKTOV	04	BELL	Repl. by POLUEKTOV 06	

[1] Extracted from $B^\pm \rightarrow D K^{*\pm}$ decays, using the D decays: $D \rightarrow K^\pm \pi^\mp$, $D \rightarrow K^\pm \pi^\mp$, $D \rightarrow K^+ K^- \pi^+ \pi^-$, $D \rightarrow K^+ \pi^- \pi^+ \pi^-$, $D \rightarrow K^- \pi^+ \pi^+ \pi^-$, $D \rightarrow \pi^+ \pi^- \pi^+ \pi^-$, $K^0_S \pi^+ \pi^-$ and $K^0_S K^+ K^-$. NODE=S041GGM;LINKAGE=CA

[2] Measured in $B^0_s \rightarrow D^\mp_s K^\pm$ decays, constraining $-2\beta_s$ by the measurement of $\phi_s = -0.031 \pm 0.018$ rad. The value is modulo 180°. NODE=S041GGM;LINKAGE=EA

[3] Combines the result with that of AAIJ 2018U. NODE=S041GGM;LINKAGE=FA

[4] Uses combined sample of Belle and Belle II experiments in B^+ decays to $D K^+$, $D^* K^+$, and $D \pi^+$ final states. NODE=S041GGM;LINKAGE=BA

[5] Extracted from yields of partially reconstructed $B^\pm \rightarrow D^* K^\pm$, $D^* \rightarrow D \pi^0 / \gamma$, $D \rightarrow K^0_S \pi^+ \pi^- / K^0_S K^+ K^-$ decays. The uncertainty is predominantly statistical. Its correlation with the AAIJ 23BA result is found to be less than 3%. NODE=S041GGM;LINKAGE=Z

[6] A model-independent binned Dalitz plot analysis of the decays $B^0 \rightarrow D K^{*0}$, with $D \rightarrow K^0_S h^+ h^-$, $h = \pi$, K. Angle γ is required to satisfy $0 < \gamma < 180$ degrees. NODE=S041GGM;LINKAGE=W

[7] Measured using $B^\pm \rightarrow D^* K^\pm$ and $B^\pm \rightarrow D^* \pi^\pm$ decays analysing the signal yield variation with the fully reconstructed $D^* \rightarrow D \pi^0 / \gamma$, $D \rightarrow K^0_S \pi^+ \pi^- / K^0_S K^+ K^-$ decays. The model-independent approach uses external strong phase input from BESIII and CLEO collaborations. NODE=S041GGM;LINKAGE=V

[8] Measured using $B^\pm \rightarrow D[K^\mp \pi^\pm \pi^\pm \pi^\mp] h^\pm$ decays in bins of the phase space of the D decay. The third uncertainty includes systematic and finite knowledge of the D-meson decay parameters. NODE=S041GGM;LINKAGE=T

[9] A model-dependent binned analysis of the decays $B^\pm \rightarrow [K^+ K^- \pi^+ \pi^-]_D h^\pm$is used. NODE=S041GGM;LINKAGE=U

[10] Uses binned Dalitz plot analysis of $D \rightarrow K^0_S \pi^+ \pi^-$ and $K^0_S K^+ K^-$ from $B^\pm \rightarrow D K^\pm$ modes. Strong phase measurements from CLEO-c and BES-III of the D decay over the Dalitz plot are used as input. Value is modulo 180°. NODE=S041GGM;LINKAGE=N

[11] Supersedes AIHARA 12. NODE=S041GGM;LINKAGE=S

[12] AAIJ 21AM presents a combination of existing measurements from LHCb collaboration. It includes also charm mixing parameters. NODE=S041GGM;LINKAGE=O

[13] Measured in $B^0_s \rightarrow D^\pm_s K^\mp \pi^\pm \pi^\mp$ decays in restricted phase space with m($K^+ \pi^+ \pi^-$) $<$ 1950 MeV, m($K^+ \pi^-$) $<$ 1200 MeV and m($\pi^+ \pi^-$) $<$ 1200 MeV. The value is modulo 180°. NODE=S041GGM;LINKAGE=M

[14] A model-independent coherence factor for the decay $B_s \rightarrow D_s K \pi \pi$ (in the restricted phase space region) is also reported. NODE=S041GGM;LINKAGE=P

[15] Uses binned analysis of $D \rightarrow K^0_S \pi^+ \pi^- \pi^0$ from $B^\pm \rightarrow D K^\pm$ modes over the phase space. Strong phase measurements from RESMI 18 analysis of CLEO-c data of the D decay over the phase space binning are used as input. NODE=S041GGM;LINKAGE=L

[16] Uses binned Dalitz plot analysis of $D \rightarrow K^0_S \pi^+ \pi^-$ and $K^0_S K^+ K^-$ from $B^\pm \rightarrow D K^\pm$ modes. Strong phase measurements from CLEO-c of the D decay over the Dalitz plot are used as input. NODE=S041GGM;LINKAGE=I

[17] Measured in $B^0_s \rightarrow D^\mp_s K^\pm$ decays, constraining $-2\beta_s$ by the measurement of $\phi_s = 0.030 \pm 0.033$ from HFLAV. The value is modulo 180°. NODE=S041GGM;LINKAGE=J

[18] AAIJ 18Z reports the intervals (5–86)° or (185–266)° at 68% C.L. The extraction uses the time dependent CP violation measurement in $B^0 \rightarrow D^\mp \pi^\pm$ decays with external input and some theoretical assumptions. NODE=S041GGM;LINKAGE=K

[19] Uses Dalitz plot analysis of $D \rightarrow K^0_S \pi^+ \pi^-$ decays coming from $B^0 \rightarrow D K^*(892)^0$ modes. Measures $r_{B^0} = 0.39 \pm 0.13$, and $\delta_{B^0} = 197^{+24}_{-20}$ degrees. NODE=S041GGM;LINKAGE=C

[20] A combination of measurements from analyses of time-integrated $B^+ \rightarrow D K^+$, $B^0 \rightarrow D K^{(*)0}$, $B^0 \rightarrow D K^+ \pi^-$, and $B^+ \rightarrow D K^+ \pi^+ \pi^-$ tree-level decays. In addition, results from a time-dependent analysis of $B^0_s \rightarrow D_s K$ decays are included. NODE=S041GGM;LINKAGE=B

[21] A model-independent binned Dalitz plot analysis of the decays $B^0 \rightarrow D K^{*0}$, with $D \rightarrow K^0_S \pi^+ \pi^-$ and $D \rightarrow K^0_S K^+ K^-$. The results cannot be combined with the model-dependent analysis of the same dataset reported in AAIJ 16AA. NODE=S041GGM;LINKAGE=E

[22] Angle γ required to satisfy $0 < \gamma < 180$ degrees. NODE=S041GGM;LINKAGE=F

[23] Uses Dalitz plot analysis of $D \rightarrow K^0_S \pi^+ \pi^-$, $K^0_S K^+ K^-$ decays coming from $B^0 \rightarrow D K^*(892)^0$ modes. NODE=S041GGM;LINKAGE=Y

[24] Obtained by measuring time-dependent CP asymmetry in $B^0_s \rightarrow K^+ K^-$ and using a U-spin relation between $B^0_s \rightarrow K^+ K^-$ and $B^0 \rightarrow \pi^+ \pi^-$. NODE=S041GGM;LINKAGE=H

[25] Results are also presented using additional inputs on $B^0 \rightarrow \pi^0 \pi^0$ and $B^+ \rightarrow \pi^+ \pi^0$ decays from other experiments and isospin symmetry assumptions. The dependence NODE=S041GGM;LINKAGE=IH

of the results on the maximum allowed amount of U-spin breaking up to 50% is also included.

[26] Uses binned Dalitz plot analysis of $B^+ \rightarrow DK^+$ decays, with $D \rightarrow K^0_S \pi^+ \pi^-$ and $D \rightarrow K^0_S K^+ K^-$. Strong phase measurements from CLEO-c (LIBBY 10) of the D decay over the Dalitz plot are used as input. Solution that satisfies $0 < \gamma < 180$ is chosen. NODE=S041GGM;LINKAGE=A

[27] AAIJ 14BE uses model-dependent analysis of $D \rightarrow K^0_S \pi^+ \pi^-$ amplitudes. The model is the same as in DEL-AMO-SANCHEZ 10F. NODE=S041GGM;LINKAGE=IA

[28] Measured in $B^0_s \rightarrow D^{\mp}_s K^{\pm}$ decays, constraining $-2\beta_s$ by the measurement of $\phi_s = 0.01 \pm 0.07 \pm 0.0$ from AAIJ 13AR. The value is modulo 180° at 68% CL. NODE=S041GGM;LINKAGE=G

[29] Presents a confidence region $55.4^\circ < \gamma < 82.3^\circ$ at 68% CL with best fit value 72.6° and includes both statistical and systematic uncertainties. The corresponding 95% CL is $40.2^\circ < \gamma < 92.7^\circ$. The value is determined from combination of measuremets using D meson decaying to K^+K^-, $\pi^+\pi^-$, $K^{\pm}\pi^{\mp}$, $K^0_S \pi^+\pi^-$, $K^0_S K^+K^-$, and $K^{\pm}\pi^{\mp}\pi^{\pm}\pi^{\mp}$. Combines $B^{\pm} \rightarrow DK^{\pm}$ and $B^{\pm} \rightarrow D\pi^{\pm}$. NODE=S041GGM;LINKAGE=AJ

[30] Reports combination of published measurements using GGSZ, GLW, and ADS methods. Reports also 2σ range of 41–102° and a 5.9σ significance for $\gamma(B^+ \rightarrow D^{(*)0} K^{(*)+}) \neq 0$ hypothesis. NODE=S041GGM;LINKAGE=LE

[31] Reports combined statistical and systematic uncertainties. NODE=S041GGM;LINKAGE=AA

[32] Uses binned Dalitz plot of $\overline{D}^0 \rightarrow K^0_S \pi^+\pi^-$ decays from $B^+ \rightarrow \overline{D}^0 K^+$. Measurement of strong phases in $\overline{D}^0 \rightarrow K^0_S \pi^+\pi^-$ Dalitz plot from LIBBY 10 is used as input. NODE=S041GGM;LINKAGE=AH

[33] We combined the systematics in quadrature. The authors report separately the contribution to the systematic uncertainty due to the uncertainty on the bin-averaged strong phase difference between D^0 and $\overline{D}^0$ amplitudes. Superseded by ABUDINEN 22. NODE=S041GGM;LINKAGE=AI

[34] Uses Dalitz plot analysis of $\overline{D}^0 \rightarrow K^0_S \pi^+\pi^-$, $K^0_S K^+K^-$ decays from $B^+ \rightarrow D^{(*)}K^+$, DK^{*+} modes. The corresponding two standard deviation interval for γ is $39^\circ < \gamma < 98^\circ$. CP conservation in the combined result is ruled out with a significance of 3.5 standard deviations. NODE=S041GGM;LINKAGE=DE

[35] Reports confidence intervals for the CKM angle γ from the measured values of the GLW parameters using $B^{\pm} \rightarrow DK^{\pm}$ decays with D mesons decaying to non-$CP(K\pi)$, CP-even $(K^+K^-, \pi^+\pi^-)$, and CP-odd $(K^0_S\pi^0, K^0_S\omega)$ states. NODE=S041GGM;LINKAGE=DA

[36] Uses Dalitz plot analysis of $\overline{D}^0 \rightarrow K^0_S \pi^+\pi^-$ decays from $B^+ \rightarrow D^{(*)}K^+$ modes. The corresponding two standard deviation interval for γ is $54.2^\circ < \gamma < 100.5^\circ$. CP conservation in the combined result is ruled out with a significance of 3.5 standard deviations. NODE=S041GGM;LINKAGE=PU

[37] Uses Dalitz plot analysis of $D^0 \rightarrow K^0_S \pi^+\pi^-$ decays coming from $B^0 \rightarrow D^0 K^{*0}$ modes. The corresponding 95% CL interval is $77^\circ < \gamma < 247^\circ$. A 180 degree ambiguity is implied. NODE=S041GGM;LINKAGE=D

[38] Uses Dalitz plot analysis of $\overline{D}^0 \rightarrow K^0_S \pi^+\pi^-$ and $\overline{D}^0 \rightarrow K^0_S K^+K^-$ decays coming from $B^{\pm} \rightarrow D^{(*)}K^{(*)\pm}$ modes. The corresponding two standard deviation interval is $29^\circ < \gamma < 122^\circ$. NODE=S041GGM;LINKAGE=AB

[39] Uses a Dalitz plot analysis of the $\overline{D}^0 \rightarrow K^0_S \pi^+\pi^-$ decays; Combines the DK^+, D^*K^+ and DK^{*+} modes. The corresponding two standard deviations interval for gamma is $8^\circ < \gamma < 111^\circ$. NODE=S041GGM;LINKAGE=PL

[40] Uses a Dalitz plot analysis of neutral $D \rightarrow K^0_S \pi^+\pi^-$ decays coming from $B^{\pm} \rightarrow DK^{\pm}$ and $B^{\pm} \rightarrow D^{*0}K^{\pm}$ followed by $D^{*0} \rightarrow D\pi^0$, $D\gamma$. The corresponding two standard deviations interval for gamma is $12^\circ < \gamma < 137^\circ$. AUBERT,B 05Y also reports the amplitude ratios and the strong phases. NODE=S041GGM;LINKAGE=AU

[41] Uses a Dalitz plot analysis of the 3-body $D \rightarrow K^0_S \pi^+\pi^-$ decays coming from $B^{\pm} \rightarrow DK^{\pm}$ and $B^{\pm} \rightarrow D^*K^{\pm}$ followed by $D^* \rightarrow D\pi^0$; here we use D to denote that the neutral D meson produced in the decay is an admixture of D^0 and $\overline{D}^0$. The corresponding two standard deviations interval for γ is $26^\circ < \gamma < 126^\circ$. POLUEKTOV 04 also reports the amplitude ratios and the strong phases. NODE=S041GGM;LINKAGE=PO

$r_B(B^+ \rightarrow D^0 K^+)$

NODE=S041ARX

r_B and δ_B are the amplitude ratio and relative strong phase between the amplitudes of $A(B^+ \rightarrow D^0 K^+)$ and $A(B^+ \rightarrow \overline{D}^0 K^+)$,

NODE=S041ARX

VALUE (units 10^{-2})	CL%	DOCUMENT ID	TECN	COMMENT
$9.88^{+0.22}_{-0.21}$ OUR EVALUATION		(Produced by HFLAV)		
$11.5^{+1.2}_{-1.3}$		[1] ADACHI 24T	BELL	$e^+e^- \rightarrow \Upsilon(4S)$)

NODE=S041ARX

→ UNCHECKED ←

• • • We do not use the following data for averages, fits, limits, etc. • • •

$9.46\pm 0.31^{+0.30}_{-0.24}$		[2] AAIJ	23I	LHCB	pp at 7, 8, 13 TeV
11.0 ± 2.0		[3] AAIJ	23N	LHCB	pp at 7, 8, 13 TeV
$12.9 \pm 2.4 \pm 0.2$		[4] ABUDINEN	22	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
$9.04^{+0.77}_{-0.75}$		[5] AAIJ	21L	LHCB	pp at 7, 8, 13 TeV
$32.3 \pm 14.7 \pm 5.6$		[6] RESMI	19	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
$8.6^{+1.3}_{-1.4}$		[7] AAIJ	18AD	LHCB	Repl. by AAIJ 21L
$8.0^{+1.9}_{-2.1}$		[4] AAIJ	14BA	LHCB	Repl. by AAIJ 21L
6 ± 4		[8] AAIJ	14BE	LHCB	Repl. by AAIJ 14BA
9.7 ± 1.1		[9] AAIJ	13AE	LHCB	pp at 7 TeV
$9.2^{+1.3}_{-1.2}$		[10] LEES	13B	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
7 ± 4		[11,12] AAIJ	12AQ	LHCB	pp at 7 TeV
$14.5 \pm 3.0 \pm 1.5$		[12,13] AIHARA	12	BELL	$e^+e^- \rightarrow \Upsilon(4S)$.
<13	90	[14] LEES	11D	BABR	$e^+e^- \rightarrow \Upsilon(4S)$
$9.6 \pm 2.9 \pm 0.6$		[15] DEL-AMO-SA..10F		BABR	Repl. by LEES 13B
$9.5^{+5.1}_{-4.1}$		[16] DEL-AMO-SA..10H		BABR	Repl. by LEES 13B
$16.0^{+4.0}_{-3.8}{}^{+5.1}_{-1.5}$		[17] POLUEKTOV	10	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
$8.6 \pm 3.2 \pm 1.5$		[18] AUBERT	08AL	BABR	Repl. by DEL-AMO-SANCHEZ 10F
<19	90	HORII	08	BELL	$e^+e^- \rightarrow \Upsilon(4S)$
$15.9^{+5.4}_{-5.0} \pm 5.0$		[19] POLUEKTOV	06	BELL	Repl. by POLUEKTOV 10
$12 \pm 8 \pm 5$		[20] AUBERT,B	05Y	BABR	Repl. by AUBERT 08AL

[1] Uses combined sample of Belle and Belle II experiments in B^+ decays to DK^+, D^*K^+, and $D\pi^+$ final states. NODE=S041ARX;LINKAGE=J

[2] Measured using $B^\pm \rightarrow D[K^\mp\pi^\pm\pi^\pm\pi^\mp]h^\pm$ decays in bins of the phase space of the D decay. The third uncertainty includes systematic and finite knowledge of the D-meson decay parameters. NODE=S041ARX;LINKAGE=I

[3] A model-dependent binned analysis of the decays $B^\pm \rightarrow [K^+K^-\pi^+\pi^-]_D h^\pm$ is used. NODE=S041ARX;LINKAGE=H

[4] Uses binned Dalitz plot analysis of $B^+ \rightarrow DK^+$ decays, with $D \rightarrow K^0_S\pi^+\pi^-$ and $D \rightarrow K^0_S K^+K^-$. Strong phase measurements from CLEO-c (LIBBY 10) of the D decay over the Dalitz plot are used as input. Supersedes AIHARA 12. NODE=S041ARX;LINKAGE=A

[5] Uses binned analysis of $D \rightarrow K^0_S\pi^+\pi^-\pi^0$ from $B^\pm \rightarrow DK^\pm$ modes over the phase space. Strong phase measurements from CLEO-c and BES-III data of the D decay over the phase space binning are used as input. NODE=S041ARX;LINKAGE=D

[6] Uses binned analysis of $D \rightarrow K^0_S\pi^+\pi^-\pi^0$ from $B^\pm \rightarrow DK^\pm$ modes over the phase space. Strong phase measurements from RESMI 18 analysis of CLEO-c data of the D decay over the phase space binning are used as input. NODE=S041ARX;LINKAGE=C

[7] Uses binned Dalitz plot analysis of $D \rightarrow K^0_S\pi^+\pi^-$ and $K^0_S K^+K^-$ from $B^\pm \rightarrow DK^\pm$ modes. Strong phase measurements from CLEO-c of the D decay over the Dalitz plot are used as input. NODE=S041ARX;LINKAGE=B

[8] AAIJ 14BE uses model-dependent analysis of $D \rightarrow K^0_S\pi^+\pi^-$ amplitudes. The model is the same as in DEL-AMO-SANCHEZ 10F. NODE=S041ARX;LINKAGE=IA

[9] Uses $B^\pm \rightarrow [K^\pm\pi^\mp\pi^+\pi^-]_D h^\pm$ mode. NODE=S041ARX;LINKAGE=AJ

[10] Reports combination of published measurements using GGSZ, GLW, and ADS methods. NODE=S041ARX;LINKAGE=LS

[11] Reports combined statistical and systematic uncertainties. NODE=S041ARX;LINKAGE=AA

[12] Uses binned Dalitz plot of $\overline{D}^0 \rightarrow K^0_S\pi^+\pi^-$ decays from $B^+ \rightarrow \overline{D}^0 K^+$. Measurement of strong phases in $\overline{D}^0 \rightarrow K^0_S\pi^+\pi^-$ Dalitz plot from LIBBY 10 is used as input. NODE=S041ARX;LINKAGE=AH

[13] We combined the systematics in quadrature. The authors report separately the contribution to the systematic uncertainty due to the uncertainty on the bin-averaged strong phase difference between D^0 and $\overline{D}^0$ amplitudes. Superseded by ABUDINEN 22. NODE=S041ARX;LINKAGE=AI

[14] Uses decays of neutral D to $K^-\pi^+\pi^0$. NODE=S041ARX;LINKAGE=LE

[15] Uses Dalitz plot analysis of $\overline{D}^0 \rightarrow K^0_S\pi^+\pi^-$, $K^0_S K^+K^-$ decays from $B^+ \rightarrow D^{(*)}K^{(*)+}$ modes. The corresponding two standard deviation interval is $0.037 < r_B < 0.155$. NODE=S041ARX;LINKAGE=DE

[16] Uses the Cabibbo suppressed decay of $B^+ \rightarrow \overline{D}K^+$ followed by $\overline{D} \rightarrow K^-\pi^+$. NODE=S041ARX;LINKAGE=DL

[17] Uses Dalitz plot analysis of $\overline{D}^0 \rightarrow K^0_S\pi^+\pi^-$ decays from $B^+ \rightarrow D^0K^+$ modes. The corresponding two standard deviation interval is $0.084 < r_B < 0.239$. NODE=S041ARX;LINKAGE=PU

[18] Uses Dalitz plot analysis of $\overline{D}^0 \rightarrow K^0_S\pi^+\pi^-$ and $\overline{D}^0 \rightarrow K^0_S K^+K^-$ decays coming from $B^\pm \rightarrow D^{(*)}K^{(*)\pm}$ modes. NODE=S041ARX;LINKAGE=AB

[19] Uses a Dalitz plot analysis of the $\overline{D}^0 \rightarrow K^0_S\pi^+\pi^-$ decays; Combines the DK^+, D^*K^+ and DK^{*+} modes. NODE=S041ARX;LINKAGE=PO

[20] Uses a Dalitz analysis of neutral D decays to $K^0_S\pi^+\pi^-$ in the processes $B^\pm \rightarrow D^{(*)}K^\pm$, $D^* \rightarrow D\pi^0$, $D\gamma$. NODE=S041ARX;LINKAGE=AU

$\delta_B(B^+ \to D^0 K^+)$

NODE=S041DRX
NODE=S041DRX

VALUE (°)	DOCUMENT ID	TECN	COMMENT
$128.5^{+2.8}_{-3.0}$ OUR EVALUATION (Produced by HFLAV)			
$137.8^{+8.5}_{-9.8}$	[1] ADACHI 24T	BELL	$e^+e^- \to \Upsilon(4S)$)
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$134.6 \pm 6.0^{+8.6}_{-8.7}$	[2] AAIJ 23I	LHCB	pp at 7, 8, 13 TeV
81^{+14}_{-13}	[3] AAIJ 23N	LHCB	pp at 7, 8, 13 TeV
$124.8 \pm 12.9 \pm 1.8$	[4,5] ABUDINEN 22	BELL	$e^+e^- \to \Upsilon(4S)$
$118.3^{+5.5}_{-5.6}$	[6] AAIJ 21L	LHCB	pp at 7, 8, 13 TeV
$83.4^{+18.3}_{-16.6} \pm 5.1$	[7] RESMI 19	BELL	$e^+e^- \to \Upsilon(4S)$
101 ± 11	[8] AAIJ 18AD	LHCB	Repl. by AAIJ 21L
134^{+14}_{-15}	[4] AAIJ 14BA	LHCB	Repl. by AAIJ 21L
115^{+41}_{-51}	[9] AAIJ 14BE	LHCB	Repl. by AAIJ 14BA
105^{+16}_{-17}	[10] LEES 13B	BABR	$e^+e^- \to \Upsilon(4S)$
137^{+35}_{-46}	[11,12] AAIJ 12AQ	LHCB	pp at 7 TeV
$129.9 \pm 15.0 \pm 6.0$	[12,13] AIHARA 12	BELL	$e^+e^- \to \Upsilon(4S)$
$119^{+19}_{-20} \pm 4$	[14] DEL-AMO-SA...10F	BABR	Repl. by LEES 13B
$136.7^{+13.0}_{-15.8} \pm 23.2$	[15] POLUEKTOV 10	BELL	$e^+e^- \to \Upsilon(4S)$
$109^{+27}_{-30} \pm 8$	[16] AUBERT 08AL	BABR	Repl. by DEL-AMO-SANCHEZ 10F
$145.7^{+19.0}_{-19.7} \pm 23.1$	[17] POLUEKTOV 06	BELL	Repl. by POLUEKTOV 10
$104 \pm 45^{+23}_{-32}$	[18] AUBERT,B 05Y	BABR	Repl. by AUBERT 08AL

→ UNCHECKED ←

[1] Uses combined sample of Belle and Belle II experiments in B^+ decays to DK^+, D^*K^+, and $D\pi^+$ final states. NODE=S041DRX;LINKAGE=J

[2] Measured using $B^\pm \to D[K^\mp\pi^\pm\pi^\pm\pi^\mp]h^\pm$ decays in bins of the phase space of the D decay. The third uncertainty includes systematic and finite knowledge of the D-meson decay parameters. NODE=S041DRX;LINKAGE=I

[3] A model-dependent binned analysis of the decays $B^\pm \to [K^+K^-\pi^+\pi^-]_D h^\pm$is used. NODE=S041DRX;LINKAGE=H

[4] Uses binned Dalitz plot analysis of $B^+ \to DK^+$ decays, with $D \to K^0_S\pi^+\pi^-$ and $D \to K^0_S K^+K^-$. Strong phase measurements from CLEO-c (LIBBY 10) of the D decay over the Dalitz plot are used as input. NODE=S041DRX;LINKAGE=A

[5] Supersedes AIHARA 12. NODE=S041DRX;LINKAGE=G

[6] Uses binned Dalitz plot analysis of $D \to K^0_S\pi^+\pi^-$ and $K^0_S K^+K^-$ from $B^\pm \to DK^\pm$ modes. Strong phase measurements from CLEO-c and BES-III of the D decay over the Dalitz plot are used as input. Value is modulo 180°. NODE=S041DRX;LINKAGE=D

[7] Uses binned analysis of $D \to K^0_S\pi^+\pi^-\pi^0$ from $B^\pm \to DK^\pm$ modes over the phase space. Strong phase measurements from RESMI 18 analysis of CLEO-c data of the D decay over the phase space binning are used as input. NODE=S041DRX;LINKAGE=C

[8] Uses binned Dalitz plot analysis of $D \to K^0_S\pi^+\pi^-$ and $K^0_S K^+K^-$ from $B^\pm \to DK^\pm$ modes. Strong phase measurements from CLEO-c of the D decay over the Dalitz plot are used as input. NODE=S041DRX;LINKAGE=B

[9] AAIJ 14BE uses model-dependent analysis of $D \to K^0_S\pi^+\pi^-$ amplitudes. The model is the same as in DEL-AMO-SANCHEZ 10F. NODE=S041DRX;LINKAGE=IA

[10] Reports combination of published measurements using GGSZ, GLW, and ADS methods. NODE=S041DRX;LINKAGE=LE

[11] Reports combined statistical and systematic uncertainties. NODE=S041DRX;LINKAGE=AA

[12] Uses binned Dalitz plot of $\overline{D}^0 \to K^0_S\pi^+\pi^-$ decays from $B^+ \to \overline{D}^0 K^+$. Measurement of strong phases in $\overline{D}^0 \to K^0_S\pi^+\pi^-$ Dalitz plot from LIBBY 10 is used as input. NODE=S041DRX;LINKAGE=AH

[13] We combined the systematics in quadrature. The authors report separately the contribution to the systematic uncertainty due to the uncertainty on the bin-averaged strong phase difference between D^0 and $\overline{D}^0$ amplitudes. Superseded by ABUDINEN 22. NODE=S041DRX;LINKAGE=AI

[14] Uses Dalitz plot analysis of $\overline{D}^0 \to K^0_S\pi^+\pi^-$, $K^0_S K^+K^-$ decays from $B^+ \to D^{(*)}K^{(*)+}$ modes. The corresponding two standard deviation interval is $75° < \delta_B < 157°$. NODE=S041DRX;LINKAGE=DE

[15] Uses Dalitz plot analysis of $\overline{D}^0 \to K^0_S\pi^+\pi^-$ decays from $B^+ \to \overline{D}^0 K^+$ modes. The corresponding two standard deviation interval is $102.2° < \delta_B < 162.3°$. NODE=S041DRX;LINKAGE=PU

[16] Uses Dalitz plot analysis of $\overline{D}^0 \to K^0_S\pi^+\pi^-$ and $\overline{D}^0 \to K^0_S K^+K^-$ decays coming from $B^\pm \to D^{(*)}K^{(*)\pm}$ modes. NODE=S041DRX;LINKAGE=AB

[17] Uses a Dalitz plot analysis of the $\overline{D}^0 \to K^0_S \pi^+ \pi^-$ decays; Combines the $D K^+$, $D^* K^+$ and $D K^{*+}$ modes. NODE=S041DRX;LINKAGE=PO

[18] Uses a Dalitz analysis of neutral D decays to $K^0_S \pi^+ \pi^-$ in the processes $B^\pm \to D^{(*)} K^\pm$, $D^* \to D\pi^0$, $D\gamma$. NODE=S041DRX;LINKAGE=AU

$r_B(B^+ \to D^0 \pi^+)$

NODE=S041A32
NODE=S041A32

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT
$16.5^{+5.5}_{-5.2}$	[1] ADACHI	24T	BELL	$e^+ e^- \to \Upsilon(4S)$)
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$4.5^{+1.1}_{-1.0}{}^{+0.5}_{-0.4}$	[2] AAIJ	23I	LHCB	pp at 7, 8, 13 TeV
$4.1^{+5.4}_{-4.1}$	[3] AAIJ	23N	LHCB	pp at 7, 8, 13 TeV
$17 \pm 6 \pm 1$	[4] ABUDINEN	22	BELL	$e^+ e^- \to \Upsilon(4S)$
5.0 ± 1.7	[4] AAIJ	21L	LHCB	pp at 7, 8, 13 TeV

[1] Uses combined sample of Belle and Belle II experiments in B^+ decays to $D K^+$, $D^* K^+$, and $D\pi^+$ final states. NODE=S041A32;LINKAGE=E

[2] Measured using $B^\pm \to D[K^\mp \pi^\pm \pi^\pm \pi^\mp] h^\pm$ decays in bins of the phase space of the D decay. The third uncertainty includes systematic and finite knowledge of the D-meson decay parameters. NODE=S041A32;LINKAGE=D

[3] A model-dependent binned analysis of the decays $B^\pm \to [K^+ K^- \pi^+ \pi^-]_D h^\pm$ is used. NODE=S041A32;LINKAGE=C

[4] Uses binned Dalitz plot analysis of $D \to K^0_S \pi^+ \pi^-$ and $K^0_S K^+ K^-$ from $B^\pm \to D\pi^\pm$ modes. Strong phase measurements from CLEO-c and BES-III of the D decay over the Dalitz plot are used as input. NODE=S041A32;LINKAGE=A

$\delta_B(B^+ \to D^0 \pi^+)$

NODE=S041A33
NODE=S041A33

VALUE (°)	DOCUMENT ID		TECN	COMMENT
$347.0^{+8.7}_{-9.6}$	[1] ADACHI	24T	BELL	$e^+ e^- \to \Upsilon(4S)$)
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$311.8^{+14.7}_{-15.0}{}^{+15.0}_{-15.2}$	[2] AAIJ	23I	LHCB	pp at 7, 8, 13 TeV
298^{+62}_{-118}	[3] AAIJ	23N	LHCB	pp at 7, 8, 13 TeV
$341.0 \pm 17.0 \pm 2.9$	[4] ABUDINEN	22	BELL	$e^+ e^- \to \Upsilon(4S)$
291^{+24}_{-26}	[4] AAIJ	21L	LHCB	pp at 7, 8, 13 TeV

[1] Uses combined sample of Belle and Belle II experiments in B^+ decays to $D K^+$, $D^* K^+$, and $D\pi^+$ final states. NODE=S041A33;LINKAGE=E

[2] Measured using $B^\pm \to D[K^\mp \pi^\pm \pi^\pm \pi^\mp] h^\pm$ decays in bins of the phase space of the D decay. The third uncertainty includes systematic and finite knowledge of the D-meson decay parameters. NODE=S041A33;LINKAGE=D

[3] A model-dependent binned analysis of the decays $B^\pm \to [K^+ K^- \pi^+ \pi^-]_D h^\pm$ is used. NODE=S041A33;LINKAGE=C

[4] Uses binned Dalitz plot analysis of $D \to K^0_S \pi^+ \pi^-$ and $K^0_S K^+ K^-$ from $B^\pm \to D\pi^\pm$ modes. Strong phase measurements from CLEO-c and BES-III of the D decay over the Dalitz plot are used as input. Value is modulo 180°. NODE=S041A33;LINKAGE=A

$r_B(B^+ \to D^0 K^{*+})$

NODE=S041ARZ

r_B and δ_B are the amplitude ratio and relative strong phase between the amplitudes of $A_{CP}(B^+ \to D^0 K^{*+})$ and $A_{CP}(B^+ \to \overline{D}^0 K^{*+})$, NODE=S041ARZ

NODE=S041ARZ

VALUE	DOCUMENT ID		TECN	COMMENT
$0.101^{+0.016}_{-0.036}$ OUR EVALUATION (Produced by HFLAV)				
0.103±0.010 OUR AVERAGE [0.17 ± 0.11 OUR 2018 AVERAGE Scale factor = 2.3]				
0.103±0.010	[1] AAIJ	25R	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.143^{+0.048}_{-0.049}$	[2] LEES	13B	BABR	$e^+ e^- \to \Upsilon(4S)$
$0.166^{+0.073}_{-0.069}$	[3] DEL-AMO-SA...	10F	BABR	Repl. by LEES 13B
0.31 ± 0.07	[4] AUBERT	09AJ	BABR	Repl. by LEES 13B
$0.181^{+0.088}_{-0.108} \pm 0.042$	[5] AUBERT	08AL	BABR	Repl. by AUBERT 09AJ
$0.564^{+0.216}_{-0.155} \pm 0.093$	[6] POLUEKTOV	06	BELL	$e^+ e^- \to \Upsilon(4S)$

→ UNCHECKED ←
NEW

[1] Extracted from $B^{\pm} \rightarrow DK^{*\pm}$ decays, using the D decays: $D \rightarrow K^{\pm}\pi^{\mp}$, $D \rightarrow K^{\pm}\pi^{\mp}$, $D \rightarrow K^{+}K^{-}\pi^{+}\pi^{-}$, $D \rightarrow K^{+}\pi^{-}\pi^{+}\pi^{-}$, $D \rightarrow K^{-}\pi^{+}\pi^{+}\pi^{-}$, $D \rightarrow \pi^{+}\pi^{-}\pi^{+}\pi^{-}$, $K^0_S\pi^{+}\pi^{-}$ and $K^0_S K^{+}K^{-}$. NODE=S041ARZ;LINKAGE=A

[2] Reports combination of published measurements using GGSZ, GLW, and ADS methods. NODE=S041ARZ;LINKAGE=LE

[3] DEL-AMO-SANCHEZ 10F reports $r_B \cdot k = 0.149^{+0.066}_{-0.062}$ for k = 0.9. NODE=S041ARZ;LINKAGE=DE

[4] Obtained by combining the GLW and ADS methods. The 2-sigma range corresponds to [0.17, 0.43]. NODE=S041ARZ;LINKAGE=AU

[5] Uses Dalitz plot analysis of $\overline{D}^0 \rightarrow K^0_S\pi^{+}\pi^{-}$ and $\overline{D}^0 \rightarrow K^0_S K^{+}K^{-}$ decays coming from $B^{\pm} \rightarrow D^{(*)}K^{(*)\pm}$ modes. NODE=S041ARZ;LINKAGE=AB

[6] Uses a Dalitz plot analysis of the $\overline{D}^0 \rightarrow K^0_S\pi^{+}\pi^{-}$ decays; Combines the DK^{+}, $D^{*}K^{+}$ and DK^{*+} modes. NODE=S041ARZ;LINKAGE=PO

$\delta_B(B^{+} \rightarrow D^0 K^{*+})$

NODE=S041DRZ

NODE=S041DRZ

VALUE (°)	DOCUMENT ID	TECN	COMMENT
47 $^{+61}_{-16}$ OUR EVALUATION (Produced by HFLAV)			
47 $^{+14}_{-12}$ OUR AVERAGE [(155 ± 70)° OUR 2018 AVERAGE Scale factor = 2.0]			
47 $^{+14}_{-12}$	[1] AAIJ 25R	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
101 ±43	[2] LEES 13B	BABR	$e^{+}e^{-} \rightarrow \Upsilon(4S)$
111 ±32	DEL-AMO-SA... 10F	BABR	Repl. by LEES 13B
104 $^{+39}_{-37}$ ±18	[3] AUBERT 08AL	BABR	Repl. by LEES 13B
242.6 $^{+20.2}_{-23.2}$ ±49.4	[4] POLUEKTOV 06	BELL	$e^{+}e^{-} \rightarrow \Upsilon(4S)$

→ UNCHECKED ←

NEW

[1] Extracted from $B^{\pm} \rightarrow DK^{*\pm}$ decays, using the D decays: $D \rightarrow K^{\pm}\pi^{\mp}$, $D \rightarrow K^{\pm}\pi^{\mp}$, $D \rightarrow K^{+}K^{-}\pi^{+}\pi^{-}$, $D \rightarrow K^{+}\pi^{-}\pi^{+}\pi^{-}$, $D \rightarrow K^{-}\pi^{+}\pi^{+}\pi^{-}$, $D \rightarrow \pi^{+}\pi^{-}\pi^{+}\pi^{-}$, $K^0_S\pi^{+}\pi^{-}$ and $K^0_S K^{+}K^{-}$. NODE=S041DRZ;LINKAGE=A

[2] Reports combination of published measurements using GGSZ, GLW, and ADS methods. NODE=S041DRZ;LINKAGE=LE

[3] Uses Dalitz plot analysis of $\overline{D}^0 \rightarrow K^0_S\pi^{+}\pi^{-}$ and $\overline{D}^0 \rightarrow K^0_S K^{+}K^{-}$ decays coming from $B^{\pm} \rightarrow D^{(*)}K^{(*)\pm}$ modes. NODE=S041DRZ;LINKAGE=AB

[4] Uses a Dalitz plot analysis of the $\overline{D}^0 \rightarrow K^0_S\pi^{+}\pi^{-}$ decays; Combines the DK^{+}, $D^{*}K^{+}$ and DK^{*+} modes. NODE=S041DRZ;LINKAGE=PO

$r_B(B^{+} \rightarrow D^{*0}K^{+})$

NODE=S041ARY

r_B and δ_B are the amplitude ratio and relative strong phase between the amplitudes of $A(B^{+} \rightarrow D^{*0}K^{+})$ and $A(B^{+} \rightarrow \overline{D}^{*0}K^{+})$, NODE=S041ARY

NODE=S041ARY

VALUE	DOCUMENT ID	TECN	COMMENT
0.103 $^{+0.010}_{-0.011}$ OUR EVALUATION (Produced by HFLAV)			
0.229 $^{+0.068}_{-0.067}$	[1] ADACHI 24T	BELL	$e^{+}e^{-} \rightarrow \Upsilon$(4S))
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.080 $^{+0.022}_{-0.023}$	[2] AAIJ 24H	LHCB	pp at 7, 8, 13 TeV
0.15 ±0.03	[3] AAIJ 23BA	LHCB	pp at 7, 8, 13 TeV
0.106 $^{+0.019}_{-0.036}$	[4] LEES 13B	BABR	$e^{+}e^{-} \rightarrow \Upsilon(4S)$
0.133 $^{+0.042}_{-0.039}$ ±0.013	[5] DEL-AMO-SA... 10F	BABR	Repl. by LEES 13B
0.096 $^{+0.035}_{-0.051}$	[6] DEL-AMO-SA... 10H	BABR	Repl. by LEES 13B
0.196 $^{+0.072}_{-0.069}$ $^{+0.064}_{-0.017}$	[7] POLUEKTOV 10	BELL	$e^{+}e^{-} \rightarrow \Upsilon(4S)$
0.135 ±0.050 ±0.012	[8] AUBERT 08AL	BABR	Repl. by DEL-AMO-SANCHEZ 10F
0.175 $^{+0.108}_{-0.099}$ ±0.050	[9] POLUEKTOV 06	BELL	Repl. by POLUEKTOV 10
0.17 ±0.10 ±0.04	[10] AUBERT,B 05Y	BABR	Repl. by AUBERT 08AL

→ UNCHECKED ←

[1] Uses combined sample of Belle and Belle II experiments in B^{+} decays to DK^{+}, $D^{*}K^{+}$, and $D\pi^{+}$ final states. NODE=S041ARY;LINKAGE=D

[2] Extracted from yields of partially reconstructed $B^{\pm} \rightarrow D^{*}K^{\pm}$, $D^{*} \rightarrow D\pi^0/\gamma$, $D \rightarrow K^0_S\pi^{+}\pi^{-}/K^0_S K^{+}K^{-}$ decays. The uncertainty is predominantly statistical. Its correlation with the AAIJ 23BA result is found to be less than 3%. NODE=S041ARY;LINKAGE=B

[3] Measured using $B^{\pm} \rightarrow D^{*}K^{\pm}$ decays analysing the signal yield variation with the fully reconstructed $D^{*} \rightarrow D\pi^0/\gamma$, $D \rightarrow K^0_S\pi^{+}\pi^{-}/K^0_S K^{+}K^{-}$ decays. The model-independent approach uses external strong phase input from BESIII and CLEO collaborations. NODE=S041ARY;LINKAGE=A

[4] Reports combination of published measurements using GGSZ, GLW, and ADS methods. NODE=S041ARY;LINKAGE=LE

[5] Uses Dalitz plot analysis of $\overline{D}^0 \to K^0_S \pi^+ \pi^-$, $K^0_S K^+ K^-$ decays from $B^+ \to D^{(*)} K^{(*)+}$ modes. The corresponding two standard deviation interval is $0.049 < r^*_B < 0.215$. NODE=S041ARY;LINKAGE=DE

[6] Uses the Cabibbo suppressed decay of $B^+ \to \overline{D}^* K^+$ followed by $\overline{D}^* \to \overline{D} \pi^0$ or $\overline{D}\gamma$, and $\overline{D} \to K^- \pi^+$. NODE=S041ARY;LINKAGE=DL

[7] Uses Dalitz plot analysis of $\overline{D}^0 \to K^0_S \pi^+ \pi^-$ decays from $B^+ \to D^{*0} K^+$ modes. The corresponding two standard deviation interval is $0.061 < r^*_B < 0.271$. NODE=S041ARY;LINKAGE=PU

[8] Uses Dalitz plot analysis of $\overline{D}^0 \to K^0_S \pi^+ \pi^-$ and $\overline{D}^0 \to K^0_S K^+ K^-$ decays coming from $B^\pm \to D^{(*)} K^{(*)\pm}$ modes. NODE=S041ARY;LINKAGE=AB

[9] Uses a Dalitz plot analysis of the $\overline{D}^0 \to K^0_S \pi^+ \pi^-$ decays; Combines the $D K^+$, $D^* K^+$ and $D K^{*+}$ modes. NODE=S041ARY;LINKAGE=PO

[10] Uses a Dalitz analysis of neutral D decays to $K^0_S \pi^+ \pi^-$ in the processes $B^\pm \to D^{(*)} K^\pm$, $D^* \to D \pi^0$, $D\gamma$. NODE=S041ARY;LINKAGE=AU

$\delta_B(B^+ \to D^{*0} K^+)$

NODE=S041DRY
NODE=S041DRY

VALUE (°)			DOCUMENT ID	TECN	COMMENT
$312.2^{+6.3}_{-7.1}$ OUR EVALUATION			(Produced by HFLAV)		
342	**$^{+14}_{-16}$**		[1] ADACHI 24T	BELL	$e^+ e^- \to \Upsilon(4S))$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
310	$^{+15}_{-20}$		[2] AAIJ 24H	LHCB	pp at 7, 8, 13 TeV
311	± 14		[3] AAIJ 23BA	LHCB	pp at 7, 8, 13 TeV
294	$^{+21}_{-31}$		[4] LEES 13B	BABR	$e^+ e^- \to \Upsilon(4S)$
278	± 21	$\pm$ 6	[5] DEL-AMO-SA...10F	BABR	Repl. by LEES 13B
341.9	$^{+18.0}_{-19.6}$	± 23.1	[6] POLUEKTOV 10	BELL	$e^+ e^- \to \Upsilon(4S)$
297	$^{+27}_{-29}$	$\pm$ 6.4	[7] AUBERT 08AL	BABR	Repl. by DEL-AMO-SANCHEZ 10F
302.0	$^{+33.8}_{-35.1}$	± 23.7	[8] POLUEKTOV 06	BELL	Repl. by POLUEKTOV 10
296	± 41	$^{+20}_{-19}$	[9] AUBERT,B 05Y	BABR	Repl. by AUBERT 08AL

→ UNCHECKED ←

[1] Uses combined sample of Belle and Belle II experiments in B^+ decays to $D K^+$, $D^* K^+$, and $D \pi^+$ final states. NODE=S041DRY;LINKAGE=C

[2] Extracted from yields of partially reconstructed $B^\pm \to D^* K^\pm$, $D^* \to D \pi^0 / \gamma$, $D \to K^0_S \pi^+ \pi^- / K^0_S K^+ K^-$ decays. The uncertainty is predominantly statistical. Its correlation with the AAIJ 23BA result is found to be less than 3%. NODE=S041DRY;LINKAGE=B

[3] Measured using $B^\pm \to D^* K^\pm$ decays analysing the signal yield variation with the fully reconstructed $D^* \to D \pi^0 / \gamma$, $D \to K^0_S \pi^+ \pi^- / K^0_S K^+ K^-$ decays. The model-independent approach uses external strong phase input from BESIII and CLEO collaborations. NODE=S041DRY;LINKAGE=A

[4] Reports combination of published measurements using GGSZ, GLW, and ADS methods. We added 360° to the value of $(-66^{+21}_{-31})^\circ$ quoted by LEES 13B. NODE=S041DRY;LINKAGE=LE

[5] Uses Dalitz plot analysis of $\overline{D}^0 \to K^0_S \pi^+ \pi^-$, $K^0_S K^+ K^-$ decays from $B^+ \to D^{(*)} K^{(*)+}$ modes. The corresponding two standard deviation interval is $236^\circ < \delta^*_B < 322^\circ$. NODE=S041DRY;LINKAGE=DE

[6] Uses Dalitz plot analysis of $\overline{D}^0 \to K^0_S \pi^+ \pi^-$ decays from $B^+ \to D^* K^+$ modes. The corresponding two standard deviation interval is $296.5^\circ < \delta^*_B < 382.7^\circ$. NODE=S041DRY;LINKAGE=PU

[7] Uses Dalitz plot analysis of $\overline{D}^0 \to K^0_S \pi^+ \pi^-$ and $\overline{D}^0 \to K^0_S K^+ K^-$ decays coming from $B^\pm \to D^{(*)} K^{(*)\pm}$ modes. NODE=S041DRY;LINKAGE=AB

[8] Uses a Dalitz plot analysis of the $\overline{D}^0 \to K^0_S \pi^+ \pi^-$ decays; Combines the $D K^+$, $D^* K^+$ and $D K^{*+}$ modes. NODE=S041DRY;LINKAGE=PO

[9] Uses a Dalitz analysis of neutral D decays to $K^0_S \pi^+ \pi^-$ in the processes $B^\pm \to D^{(*)} K^\pm$, $D^* \to D \pi^0$, $D\gamma$. NODE=S041DRY;LINKAGE=AU

$r_B(B^+ \to D^{*0} \pi^+)$

NODE=S041D18

r_B and δ_B are the amplitude ratio and relative strong phase between the amplitudes of $A(B^+ \to D^{*0} \pi^+)$ and $A(B^+ \to \overline{D}^{*0} \pi^+)$. NODE=S041D18

NODE=S041D18

VALUE	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.009^{+0.005}_{-0.007}$	[1] AAIJ 24H	LHCB	pp at 7, 8, 13 TeV
0.01 ± 0.01	[2] AAIJ 23BA	LHCB	pp at 7, 8, 13 TeV

[1] Extracted from yields of partially reconstructed $B^{\pm} \to D^* K^{\pm}$, $D^* \to D\pi^0/\gamma$, $D \to K^0_S \pi^+\pi^- / K^0_S K^+ K^-$ decays. The uncertainty is predominantly statistical. Its correlation with the AAIJ 23BA result is found to be less than 3%. NODE=S041D18;LINKAGE=B

[2] Measured using $B^{\pm} \to D^* \pi^{\pm}$ decays analysing the signal yield variation with the fully reconstructed $D^* \to D\pi^0/\gamma$, $D \to K^0_S \pi^+\pi^- / K^0_S K^+ K^-$ decays. The model-independent approach uses external strong phase input from BESIII and CLEO collaborations. NODE=S041D18;LINKAGE=A

$\delta_B(B^+ \to D^{*0}\pi^+)$

NODE=S041D19
NODE=S041D19

VALUE (°)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
304^{+37}_{-38}	[1] AAIJ	24H	LHCB	pp at 7, 8, 13 TeV
37 ± 37	[2] AAIJ	23BA	LHCB	pp at 7, 8, 13 TeV

[1] Extracted from yields of partially reconstructed $B^{\pm} \to D^* K^{\pm}$, $D^* \to D\pi^0/\gamma$, $D \to K^0_S \pi^+\pi^- / K^0_S K^+ K^-$ decays. The uncertainty is predominantly statistical. Its correlation with the AAIJ 23BA result is found to be less than 3%. NODE=S041D19;LINKAGE=B

[2] Measured using $B^{\pm} \to D^* \pi^{\pm}$ decays analysing the signal yield variation with the fully reconstructed $D^* \to D\pi^0/\gamma$, $D \to K^0_S \pi^+\pi^- / K^0_S K^+ K^-$ decays. The model-independent approach uses external strong phase input from BESIII and CLEO collaborations. NODE=S041D19;LINKAGE=A

PARTIAL BRANCHING FRACTIONS

NODE=S041240

$B(B^+ \to K^{*+}\ell^+\ell^-)$ ($q^2 < 2.0$ GeV^2/c^4)

NODE=S041PB1
NODE=S041PB1

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
1.4 ±0.5 OUR AVERAGE				
$1.37^{+0.60}_{-0.58}$	AAIJ	12AH	LHCB	pp at 7 TeV
$1.30\pm0.98\pm0.14$	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV

$B(B^+ \to K^{*+}\ell^+\ell^-)$ ($2.0 < q^2 < 4.3$ GeV^2/c^4)

NODE=S041PB2
NODE=S041PB2

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
1.1 ±0.5 OUR AVERAGE				
$1.24^{+0.60}_{-0.55}$	AAIJ	12AH	LHCB	pp at 7 TeV
$0.71\pm1.00\pm0.15$	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV

$B(B^+ \to K^{*+}\ell^+\ell^-)$ ($4.3 < q^2 < 8.68$ GeV^2/c^4)

NODE=S041PB3
NODE=S041PB3

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
$2.4^{+0.8}_{-0.7}$ OUR AVERAGE				
$2.50^{+0.88}_{-0.74}$	AAIJ	12AH	LHCB	pp at 7 TeV
$1.71\pm1.58\pm0.49$	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV

$B(B^+ \to K^{*+}\ell^+\ell^-)$ ($10.09 < q^2 < 12.86$ GeV^2/c^4)

NODE=S041PB4
NODE=S041PB4

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
2.1 ±0.6 OUR AVERAGE				
$2.13^{+0.72}_{-0.66}$	AAIJ	12AH	LHCB	pp at 7 TeV
$1.97\pm0.99\pm0.22$	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV

$B(B^+ \to K^{*+}\ell^+\ell^-)$ ($14.18 < q^2 < 16.0$ GeV^2/c^4)

NODE=S041PB5
NODE=S041PB5

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
$0.86^{+0.40}_{-0.32}$ OUR AVERAGE				
$1.00^{+0.47}_{-0.38}$	AAIJ	12AH	LHCB	pp at 7 TeV
$0.52\pm0.61\pm0.09$	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV

$B(B^+ \to K^{*+}\ell^+\ell^-)$ ($15.0 < q^2 < 19.0$ GeV^2/c^4)

NODE=S041PBO
NODE=S041PBO

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
$1.78^{+0.32}_{-0.29}$ OUR AVERAGE				
$2.9\ ^{+1.0}_{-0.8}\ \pm0.3$	[1] WEHLE	21	BELL	$e^+e^- \to \Upsilon(4S)$
$2.1\ ^{+1.2}_{-1.0}\ \pm0.2$	[2] WEHLE	21	BELL	$e^+e^- \to \Upsilon(4S)$ OCCUR=2
$1.58^{+0.32}_{-0.29}\pm0.11$	[3] AAIJ	14M	LHCB	pp at 7, 8 TeV

[1] Measured with $\mu^+\mu^-$ as lepton pair. NODE=S041PBO;LINKAGE=B
[2] Measured with e^+e^- as lepton pair. NODE=S041PBO;LINKAGE=C
[3] Uses B($B^+ \to J/\psi(1S) K^*(892)^+$) = $(1.431 \pm 0.027 \pm 0.090) \times 10^{-3}$ for normalization and $\mu^+\mu^-$ as a lepton pair. NODE=S041PBO;LINKAGE=A

B($B^+ \to K^{*+} \ell^+ \ell^-$) ($q^2$ > 16.0 GeV^2/c^4)

NODE=S041PB6

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
1.3 ±0.4 OUR AVERAGE				
1.25±0.46	AAIJ	12AH	LHCB	pp at 7 TeV
1.57±0.96±0.17	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV

B($B^+ \to K^{*+} \ell^+ \ell^-$) (1.0 < q^2 < 6.0 GeV^2/c^4)

NODE=S041PB7

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
$1.72^{+0.40}_{-0.32}$ OUR AVERAGE				
$1.2\ ^{+0.9}_{-0.7}$ ±0.2	[1,2] WEHLE	21	BELL	$e^+e^- \to \Upsilon(4S)$
$1.7\ ^{+1.0}_{-1.0}$ ±0.2	[2,3] WEHLE	21	BELL	$e^+e^- \to \Upsilon(4S)$ OCCUR=2
$1.79^{+0.41}_{-0.37}$±0.13	[4] AAIJ	14M	LHCB	pp at 7, 8 TeV
2.57±1.61±0.40	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$2.90^{+0.90}_{-0.85}$	AAIJ	12AH	LHCB	Repl. by AAIJ 14M

[1] Measured with $\mu^+\mu^-$ as lepton pair. NODE=S041PB7;LINKAGE=B
[2] Result is determined for the range 1.1 < q^2 < 6.0 GeV^4/c^2. NODE=S041PB7;LINKAGE=C
[3] Measured with e^+e^- as lepton pair. NODE=S041PB7;LINKAGE=D
[4] Uses B($B^+ \to J/\psi(1S) K^*(892)^+$) = $(1.431 \pm 0.027 \pm 0.090) \times 10^{-3}$ for normalization and $\mu^+\mu^-$ as a lepton pair. Measured in 1.1 < q^2 < 6.0 GeV^2/c^4. NODE=S041PB7;LINKAGE=A

B($B^+ \to K^{*+} \ell^+ \ell^-$) (0.0 < q^2 < 4.3 GeV^2/c^4)

NODE=S041PB8

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
2.01±1.39±0.27	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV

B($B^+ \to K^{*+} e^+ e^-$) (0.045 < q^2 < 6.0 GeV^2/c^4)

NODE=S041A54

VALUE (units 10^{-8})	DOCUMENT ID		TECN	COMMENT
$55\pm11^{+5}_{-4}$	[1] AAIJ	22J	LHCB	pp at 7, 8, 13 TeV

[1] The reported value is converted from the measured $dB/dq^2 = (9.2^{+1.9}_{-1.8}{}^{+0.8}_{-0.6}) \times 10^{-8}$ (GeV^2/c^4)$^{-1}$ by multiplying by the Δq^2 = 5.955 GeV^2/c^4 range. NODE=S041A54;LINKAGE=A

B($B^+ \to K^{*+} \mu^+ \mu^-$) / B($B^+ \to K^{*+} e^+ e^-$) (0.045 < q^2 < 1.1 GeV^2/c^4)

NODE=S041A35

VALUE	DOCUMENT ID		TECN	COMMENT
$0.62^{+0.60}_{-0.36}$±0.07	WEHLE	21	BELL	$e^+e^- \to \Upsilon(4S)$

B($B^+ \to K^{*+} \mu^+ \mu^-$) / B($B^+ \to K^{*+} e^+ e^-$) (1.1 < q^2 < 6.0 GeV^2/c^4)

NODE=S041A36

VALUE	DOCUMENT ID		TECN	COMMENT
$0.72^{+0.99}_{-0.44}$±0.14	WEHLE	21	BELL	$e^+e^- \to \Upsilon(4S)$

B($B^+ \to K^{*+} \mu^+ \mu^-$) / B($B^+ \to K^{*+} e^+ e^-$) (0.045 < q^2 < 6.0 GeV^2/c^4)

NODE=S041A55

VALUE	DOCUMENT ID		TECN	COMMENT
$0.70^{+0.18}_{-0.13}{}^{+0.03}_{-0.04}$	AAIJ	22J	LHCB	pp at 7, 8, 13 TeV

B($B^+ \to K^{*+} \mu^+ \mu^-$)/B($B^+ \to K^{*+} e^+ e^-$) (15.0 < q^2 < 19.0 GeV^2/c^4)

NODE=S041A37

VALUE	DOCUMENT ID		TECN	COMMENT
$1.40^{+1.99}_{-0.68}$±0.11	WEHLE	21	BELL	$e^+e^- \to \Upsilon(4S)$

B($B^+ \to K^+ \ell^+ \ell^-$) ($q^2$ < 2.0 GeV^2/c^4)

NODE=S041PB9

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
0.51 ±0.08 OUR AVERAGE	Error includes scale factor of 1.5.			
0.556±0.053±0.027	[1] AAIJ	13H	LHCB	pp at 7 TeV
0.36 ±0.11 ±0.03	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV

[1] Measured in 0.05 < q^2 < 2.0 GeV^2/c^4 range. NODE=S041PB9;LINKAGE=AA

B($B^+ \to K^+ \ell^+ \ell^-$) (2.0 < q^2 < 4.3 GeV^2/c^4)

NODE=S041PBA
NODE=S041PBA

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
0.60 ±0.07 OUR AVERAGE	Error includes scale factor of 1.3.		
0.573±0.053±0.023	AAIJ 13H	LHCB	pp at 7 TeV
0.80 ±0.15 ±0.05	AALTONEN 11AI	CDF	$p\overline{p}$ at 1.96 TeV

B($B^+ \to K^+ \ell^+ \ell^-$) (4.3 < q^2 < 8.68 GeV^2/c^4)

NODE=S041PBB
NODE=S041PBB

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
1.03 ±0.07 OUR AVERAGE			
1.003±0.070±0.039	AAIJ 13H	LHCB	pp at 7 TeV
1.18 ±0.19 ±0.09	AALTONEN 11AI	CDF	$p\overline{p}$ at 1.96 TeV

B($B^+ \to K^+ \ell^+ \ell^-$) (10.09 < q^2 < 12.86 GeV^2/c^4)

NODE=S041PBC
NODE=S041PBC

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
0.58 ±0.05 OUR AVERAGE			
0.565±0.050±0.022	AAIJ 13H	LHCB	pp at 7 TeV
0.68 ±0.12 ±0.05	AALTONEN 11AI	CDF	$p\overline{p}$ at 1.96 TeV

B($B^+ \to K^+ \ell^+ \ell^-$) (14.18 < q^2 < 16.0 GeV^2/c^4)

NODE=S041PBD
NODE=S041PBD

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
0.40 ±0.05 OUR AVERAGE	Error includes scale factor of 1.4.		
0.377±0.036±0.015	AAIJ 13H	LHCB	pp at 7 TeV
0.53 ±0.10 ±0.03	AALTONEN 11AI	CDF	$p\overline{p}$ at 1.96 TeV

B($B^+ \to K^+ \ell^+ \ell^-$) (16.0 < q^2 < 18.0 GeV^2/c^4)

NODE=S041PBH
NODE=S041PBH

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
0.354±0.036±0.018	AAIJ 13H	LHCB	pp at 7 TeV

B($B^+ \to K^+ \ell^+ \ell^-$) (18.0 < q^2 < 22.0 GeV^2/c^4)

NODE=S041PBI

F_H is a fractional contribution of (pseudo) scalar and tensor amplitudes to the decay width in the massless muon approximation.

NODE=S041PBI

NODE=S041PBI

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
0.312±0.040±0.016	AAIJ 13H	LHCB	pp at 7 TeV

B($B^+ \to K^+ \ell^+ \ell^-$) (15.0 < q^2 < 22.0 GeV^2/c^4)

NODE=S041PBN
NODE=S041PBN

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
0.85±0.03±0.04	[1] AAIJ 14M	LHCB	pp at 7, 8 TeV

[1] Uses B($B^+ \to J/\psi(1S) K^+$) = $(0.998 \pm 0.014 \pm 0.040) \times 10^{-3}$ for normalization and $\mu^+\mu^-$ as a lepton pair.

NODE=S041PBN;LINKAGE=A

B($B^+ \to K^+ \ell^+ \ell^-$) (16.0 < q^2 GeV^2/c^4)

NODE=S041PBE
NODE=S041PBE

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
0.48±0.11±0.03	AALTONEN 11AI	CDF	$p\overline{p}$ at 1.96 TeV

B($B^+ \to K^+ \ell^+ \ell^-$) (1.0 < q^2 < 6.0 GeV^2/c^4)

NODE=S041PBF
NODE=S041PBF

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
1.26 ±0.12 OUR AVERAGE	Error includes scale factor of 1.9. See the ideogram below.		
2.30 $^{+0.41}_{-0.38}$ ±0.05	[1] CHOUDHURY 21	BELL	$e^+e^- \to \Upsilon(4S)$
1.66 $^{+0.32}_{-0.29}$ ±0.04	[2] CHOUDHURY 21	BELL	$e^+e^- \to \Upsilon(4S)$
1.40 $^{+0.98}_{-0.34}$ ±0.69	[3] AAIJ 19S	LHCB	pp at 7, 8, 13 TeV
1.19 ±0.034±0.059	[4] AAIJ 14M	LHCB	pp at 7, 8 TeV
1.41 ±0.20 ±0.10	AALTONEN 11AI	CDF	$p\overline{p}$ at 1.96 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
1.56 $^{+0.19}_{-0.15}$ $^{+0.06}_{-0.04}$	[5] AAIJ 14AR	LHCB	pp at 7, 8 TeV
1.205±0.085±0.070	AAIJ 13H	LHCB	Repl. by AAIJ 14M

OCCUR=2

[1] Measured for $B^+ \to K^+\mu^+\mu^-$ decays. Measurements in other q^2 bins are also reported.

NODE=S041PBF;LINKAGE=C

[2] Measured for $B^+ \to K^+ e^+ e^-$ decays. Measurements in other q^2 bins are also reported.

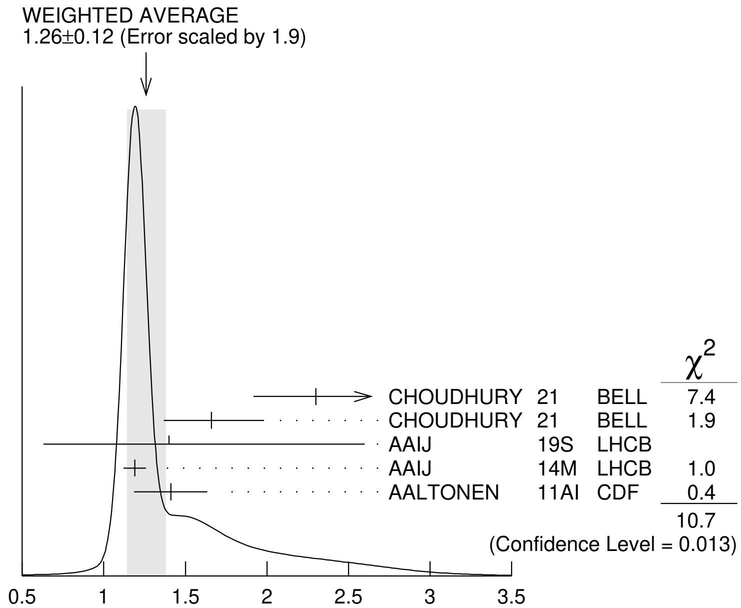
NODE=S041PBF;LINKAGE=D

[3] Measured by taking the ratio of the branching fraction from $B^+ \to K^+ e^+ e^-$ and $B^+ \to J/\psi(e^+e^-) K^+$ decays and multiplying it by the measured value of $B^+ \to J/\psi K^+$ and $J/\psi \to e^+e^-$ as in PDG 18. The branching fraction of $B^+ \to K^+ e^+ e^-$ is determined in the region $1.1 < q^2 < 6$ GeV^2/c^4.

NODE=S041PBF;LINKAGE=B

[4] Uses B($B^+ \to J/\psi(1S) K^+$) = $(0.998 \pm 0.014 \pm 0.040) \times 10^{-3}$ for normalization and $\mu^+\mu^-$ for leptons. Measured for $1.1 < q^2 < 6.0$ GeV^2/c^4. NODE=S041PBF;LINKAGE=A

[5] Measured by taking the ratio of the branching fraction from $B^+ \to K^+ e^+ e^-$ and $B^+ \to J/\psi(e^+e^-)K^+$decays and multiplying it by the measured value of $B^+ \to J/\psi K^+$ and $J/\psi \to e^+e^-$ as in PDG 12.The branching fraction of $B^+ \to K^+ e^+ e^-$ is determined in the region $1 < q^2 < 6$ GeV^2/c^4. NODE=S041PBF;LINKAGE=E



B($B^+ \to K^+ \ell^+ \ell^-$) ($1.0 < q^2 < 6.0$ GeV^2/c^4) (units 10^{-7})

B($B^+ \to K^+ \mu^+ \mu^-$) / B($B^+ \to K^+ e^+ e^-$) ($0.1 < q^2 < 1.1$ GeV^2/c^4)

NODE=S041A66

VALUE	DOCUMENT ID		TECN	COMMENT
$0.994^{+0.090+0.029}_{-0.082-0.027}$	AAIJ	23AB	LHCB	pp at 7, 8, 13 TeV

B($B^+ \to K^+ \mu^+ \mu^-$) / B($B^+ \to K^+ e^+ e^-$) ($1.0 < q^2 < 6.0$ GeV^2/c^4)

NODE=S041PBP

VALUE	DOCUMENT ID		TECN	COMMENT
0.96 ±0.05 OUR AVERAGE				
$0.949^{+0.042}_{-0.041} \pm 0.022$	[1] AAIJ	23AB	LHCB	pp at 7, 8, 13 TeV
$1.39\ ^{+0.36}_{-0.33} \pm 0.02$	[2] CHOUDHURY	21	BELL	$e^+e^- \to \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.846^{+0.042+0.013}_{-0.039-0.012}$	[3,4] AAIJ	22V	LHCB	pp at 7, 8, 13 TeV
$0.846^{+0.060+0.016}_{-0.054-0.014}$	[3,5] AAIJ	19S	LHCB	pp at 7, 8, 13 TeV
$0.745^{+0.090}_{-0.074} \pm 0.036$	[3] AAIJ	14AR	LHCB	pp at 7, 8 TeV

[1] Measured for the region $1.1 < q^2 < 6.0$ GeV^2/c^4. NODE=S041PBP;LINKAGE=F

[2] Measurements in other q^2 bins are also reported. NODE=S041PBP;LINKAGE=C

[3] The ratio is determined using the relative branching fractions of the decays $B^+ \to K^+ \ell^+ \ell^-$ and $B^+ \to J/\psi(\to \ell^+ \ell^-)\ K^+$, with $\ell = e, \mu$. Measured for the region $1.1 < q^2 < 6.0$ GeV^2/c^4. NODE=S041PBP;LINKAGE=B

[4] Superseded by AAIJ 23AB. NODE=S041PBP;LINKAGE=H

[5] Superseded by AAIJ 22V. NODE=S041PBP;LINKAGE=E

B($B^+ \to K^+ \mu^+ \mu^-$) / B($B^+ \to K^+ e^+ e^-$) ($q^2 > 14.3$ GeV^2/c^4)

NODE=S041D64

VALUE	DOCUMENT ID		TECN	COMMENT
$1.08^{+0.11}_{-0.09} \pm 0.04$	AAIJ	25Y	LHCB	pp at 7, 8 and 13 TeV

B($B^+ \to K^+ \ell^+ \ell^-$) ($0.0 < q^2 < 4.3$ GeV^2/c^4)

NODE=S041PBG

VALUE (units 10^{-7})	DOCUMENT ID		TECN	COMMENT
1.13±0.19±0.08	AALTONEN	11AI	CDF	$p\overline{p}$ at 1.96 TeV

B($B^+ \to K^+\pi^+\pi^-\mu^+\mu^-$) ($1.00 < q^2 < 6.00$ GeV^2/c^4)

NODE=S041PBQ
NODE=S041PBQ

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
$1.38^{+0.15}_{-0.14}\pm0.08$	AAIJ 14AZ	LHCB	pp at 7, 8 TeV

B($B^+ \to K^+\pi^+\pi^-\mu^+\mu^-$) ($0.10 < q^2 < 2.00$ GeV^2/c^4)

NODE=S041PBR
NODE=S041PBR

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
$1.33^{+0.13}_{-0.12}\pm0.09$	AAIJ 14AZ	LHCB	pp at 7, 8 TeV

B($B^+ \to K^+\pi^+\pi^-\mu^+\mu^-$) ($2.00 < q^2 < 4.30$ GeV^2/c^4)

NODE=S041PBS
NODE=S041PBS

VALUE (units 10^{-8})	DOCUMENT ID	TECN	COMMENT
$5.38^{+0.94}_{-0.87}\pm0.35$	AAIJ 14AZ	LHCB	pp at 7, 8 TeV

B($B^+ \to K^+\pi^+\pi^-\mu^+\mu^-$) ($4.30 < q^2 < 8.68$ GeV^2/c^4)

NODE=S041PBT
NODE=S041PBT

VALUE (units 10^{-7})	DOCUMENT ID	TECN	COMMENT
$1.01^{+0.12}_{-0.13}\pm0.09$	AAIJ 14AZ	LHCB	pp at 7, 8 TeV

B($B^+ \to K^+\pi^+\pi^-\mu^+\mu^-$) ($10.09 < q^2 < 12.86$ GeV^2/c^4)

NODE=S041PBU
NODE=S041PBU

VALUE (units 10^{-8})	DOCUMENT ID	TECN	COMMENT
$5.07^{+0.94}_{-0.89}\pm0.47$	AAIJ 14AZ	LHCB	pp at 7, 8 TeV

B($B^+ \to K^+\pi^+\pi^-\mu^+\mu^-$) ($14.18 < q^2 < 19.00$ GeV^2/c^4)

NODE=S041PBV
NODE=S041PBV

VALUE (units 10^{-8})	DOCUMENT ID	TECN	COMMENT
$0.48^{+0.39}_{-0.29}\pm0.05$	AAIJ 14AZ	LHCB	pp at 7, 8 TeV

B($B^+ \to K^+\pi^+\pi^- e^+e^-$) / B($B^+ \to K^+\pi^+\pi^-\mu^+\mu^-$) ($1.1 < q^2 < 7.0$ GeV^2/c^4)

NODE=S041D63
NODE=S041D63

VALUE	DOCUMENT ID	TECN	COMMENT
$1.31^{+0.18}_{-0.17}{}^{+0.12}_{-0.09}$	AAIJ 25L	LHCB	pp at 7, 8 and 13 TeV

B($B^+ \to \pi^+\mu^+\mu^-$)/B($B^+ \to K^+\mu^+\mu^-$) ($1.00 < q^2 < 6.00$ GeV^2/c^4)

NODE=S041PBW
NODE=S041PBW

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
3.8±0.9±0.1	AAIJ 15AR	LHCB	pp at 7, 8 TeV

B($B^+ \to \pi^+\mu^+\mu^-$) ($1.00 < q^2 < 6.00$ GeV^2/c^4)

NODE=S041PBY
NODE=S041PBY

VALUE (units 10^{-9})	DOCUMENT ID	TECN	COMMENT
$4.55^{+1.05}_{-1.00}\pm0.15$	AAIJ 15AR	LHCB	pp at 7, 8 TeV

B($B^+ \to \pi^+\mu^+\mu^-$) ($15.00 < q^2 < 22.00$ GeV^2/c^4)

NODE=S041PBZ
NODE=S041PBZ

VALUE (units 10^{-9})	DOCUMENT ID	TECN	COMMENT
$3.29^{+0.84}_{-0.70}\pm0.07$	AAIJ 15AR	LHCB	pp at 7, 8 TeV

B($B^+ \to \pi^+\mu^+\mu^-$)/B($B^+ \to K^+\mu^+\mu^-$) ($15.0 < q^2 < 22.0$ GeV^2/c^4)

NODE=S041PBX
NODE=S041PBX

VALUE (units 10^{-2})	DOCUMENT ID	TECN	COMMENT
3.7±0.8±0.1	AAIJ 15AR	LHCB	pp at 7, 8 TeV

A_{FB}($B^+ \to K^+\mu^+\mu^-$) ($1.1 < q^2 < 6.0$ GeV^2/c^4)

NODE=S041PBJ

A_{FB} is the forward-backward angular asymmetry of the lepton pair in $B \to K^{(*)}\ell^+\ell^-$ decay as defined in B^+, B^0 admixture particle listings.

NODE=S041PBJ

NODE=S041PBJ

VALUE	DOCUMENT ID	TECN	COMMENT
−0.003±0.017 OUR AVERAGE			
$-0.14\ {}^{+0.07}_{-0.06}\ \pm0.03$	[1] SIRUNYAN 18DX	CMS	pp at 8 TeV
$0.005\pm0.015\pm0.010$	[2] AAIJ 14O	LHCB	pp at 7,8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.02\ {}^{+0.05}_{-0.03}\ {}^{+0.02}_{-0.01}$	AAIJ 13H	LHCB	Repl. by AAIJ 14O

[1] Measurement is performed in $1.0 < q^2 < 6.0$ GeV^2/c^4. SIRUNYAN 18DX reports also measurements in several other q^2 intervals.

NODE=S041PBJ;LINKAGE=B

[2] AAIJ 14O reports 68% C.L. interval, which we encode as midpoint with uncertainty as half of the width of interval.

NODE=S041PBJ;LINKAGE=A

NODE=S041PBK
NODE=S041PBK

$A_{FB}(B^+ \to K^+ \mu^+ \mu^-)$ ($15.0 < q^2 < 22.0$ GeV^2/c^4)

VALUE	DOCUMENT ID		TECN	COMMENT
$-0.015 \pm 0.015 \pm 0.01$	[1] AAIJ	14O	LHCB	pp at 7, 8 TeV

NODE=S041PBK;LINKAGE=A

[1] AAIJ 14O reports 68% C.L. interval, which we encode as midpoint with uncertainty as half of the width of interval.

NODE=S041PBL

$F_H(B^+ \to K^+ \mu^+ \mu^-)$ ($1.1 < q^2 < 6.0$ GeV^2/c^4)

NODE=S041PBL

F_H is a fractional contribution of (pseudo) scalar and tensor amplitudes to the decay width in the massless muon approximation.

NODE=S041PBL

VALUE	DOCUMENT ID		TECN	COMMENT
0.04±0.04 OUR AVERAGE				
$0.38^{+0.17}_{-0.21} \pm 0.09$	[1] SIRUNYAN	18DX	CMS	pp at 8 TeV
$0.03 \pm 0.03 \pm 0.02$	[2] AAIJ	14O	LHCB	pp at 7, 8 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.05^{+0.08}_{-0.05}{}^{+0.04}_{-0.02}$	AAIJ	13H	LHCB	Repl. by AAIJ 14O

NODE=S041PBL;LINKAGE=B

[1] Measurement is performed in $1.0 < q^2 < 6.0$ GeV^2/c^4. SIRUNYAN 18DX reports also measurements in several other q^2 intervals.

NODE=S041PBL;LINKAGE=A

[2] AAIJ 14O reports 68% C.L. interval, which we encode as midpoint with uncertainty as half of the width of interval.

NODE=S041PBM

$F_H(B^+ \to K^+ \mu^+ \mu^-)$ ($15.0 < q^2 < 22.0$ GeV^2/c^4)

NODE=S041PBM

F_H is a fractional contribution of (pseudo) scalar and tensor amplitudes to the decay width in the massless muon approximation.

NODE=S041PBM

VALUE	DOCUMENT ID		TECN	COMMENT
$0.035 \pm 0.035 \pm 0.02$	[1] AAIJ	14O	LHCB	pp at 7, 8 TeV

NODE=S041PBM;LINKAGE=A

[1] AAIJ 14O reports 68% C.L. interval, which we encode as midpoint with uncertainty as half of the width of interval.

FORWARD-BACKWARD ASYMMETRIES

NODE=S041250

NODE=S041250

The forward-backward assymmetry is defined as A_{FB} = [N(q_{FB} > 0) − N(q_{FB} < 0)] / [N(q_{FB} > 0) + N(q_{FB} < 0)], where $q_{FB} = -q_B \cdot \mathrm{sgn}(\eta_B)$ with q_B as the B hadron electric charge, η_B as its pseudorapidity, and sgn(η_B) as a sign function of η_B.

NODE=S041FBJ
NODE=S041FBJ

$A_{FB}(B^\pm \to J/\psi K^\pm)$

VALUE (units 10^{-2})	DOCUMENT ID		TECN	COMMENT
$-0.24 \pm 0.41 \pm 0.19$	ABAZOV	15	D0	$p\overline{p}$ at 1.96 TeV

NODE=S041A91
NODE=S041A91

A_{FB} in $B^+ \to \overline{D}^{*0} e^+ \nu_e$

VALUE	DOCUMENT ID		TECN	COMMENT
$0.234 \pm 0.026 \pm 0.006$	PRIM	23	BELL	$e^+ e^- \to \Upsilon(4S)$

NODE=S041A92
NODE=S041A92

A_{FB} in $B^+ \to \overline{D}^{*0} \mu^+ \nu_\mu$

VALUE	DOCUMENT ID		TECN	COMMENT
$0.243 \pm 0.026 \pm 0.006$	PRIM	23	BELL	$e^+ e^- \to \Upsilon(4S)$

NODE=S041A93
NODE=S041A93

$\Delta(A_{FB}) = (A^{\mu}_{FB} - A^{e}_{FB})$ in $B^+ \to \overline{D}^{*0} \ell^+ \nu_\ell$

VALUE	DOCUMENT ID		TECN	COMMENT
$0.008 \pm 0.037 \pm 0.009$	PRIM	23	BELL	$e^+ e^- \to \Upsilon(4S)$

NODE=S041A42
NODE=S041A42

$A_{FB}(B^\pm \to K^*(892)^+ \mu^+ \mu^-)$ ($1.0 < q^2 < 8.68$ GeV^2/c^4)

VALUE	DOCUMENT ID		TECN	COMMENT
$-0.14^{+0.32}_{-0.35} \pm 0.17$	[1,2] SIRUNYAN	21AC	CMS	pp at 8 TeV

NODE=S041A42;LINKAGE=A

[1] SIRUNYAN 21AC measurement is performed in $1.0 < q^2 < 8.68$ GeV^2/c^4. Reports also measurements in several other q^2 intervals.

NODE=S041A42;LINKAGE=B

[2] A_{FB} is defined with respect to $\mu^+ \mu^-$ direction and not the B direction.

NODE=S041A51
NODE=S041A51

$A_{FB}(B^\pm \to K^*(892)^+ \mu^+ \mu^-)$ ($1.1 < q^2 < 6.0$ GeV^2/c^4)

VALUE	DOCUMENT ID		TECN	COMMENT
$-0.08^{+0.07}_{-0.08} \pm 0.02$	[1] AAIJ	21J	LHCB	pp at 7, 8, 13 TeV

NODE=S041A51;LINKAGE=A

[1] The full set of CP-averaged angular observables is measured as a function of the q^2. The A_{FB} is measured related to the dimuon system.

$A_{FB}(B^{\pm} \to K^*(892)^+ \mu^+ \mu^-)$ ($10.09 < q^2 < 12.86$ GeV^2/c^4)

NODE=S041A43

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.09^{+0.16}_{-0.11} \pm 0.04}$	[1,2] SIRUNYAN	21AC	CMS	pp at 8 TeV

[1] SIRUNYAN 21AC measurement is performed in $10.09 < q^2 < 12.86$ GeV^2/c^4. Reports also measurements in several other q^2 intervals. NODE=S041A43;LINKAGE=A

[2] A_{FB} is defined with respect to $\mu^+\mu^-$ direction and not the B direction. NODE=S041A43;LINKAGE=B

$A_{FB}(B^{\pm} \to K^*(892)^+ \mu^+ \mu^-)$ ($14.18 < q^2 < 19.0$ GeV^2/c^4)

NODE=S041A44

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{0.33^{+0.11}_{-0.07} \pm 0.05}$	[1,2] SIRUNYAN	21AC	CMS	pp at 8 TeV

[1] SIRUNYAN 21AC measurement is performed in $14.18 < q^2 < 19.0$ GeV^2/c^4. Reports also measurements in several other q^2 intervals. NODE=S041A44;LINKAGE=A

[2] A_{FB} is defined with respect to $\mu^+\mu^-$ direction and not the B direction. NODE=S041A44;LINKAGE=B

$A_{FB}(B^{\pm} \to K^*(892)^+ \mu^+ \mu^-)$ ($15.0 < q^2 < 19.0$ GeV^2/c^4)

NODE=S041A52

VALUE	DOCUMENT ID		TECN	COMMENT
0.31±0.06±0.04	[1] AAIJ	21J	LHCB	pp at 7, 8, 13 TeV

[1] The full set of CP-averaged angular observables is measured as a function of the q^2. The A_{FB} is measured related to the dimuon system. NODE=S041A52;LINKAGE=A

$A_P(B^+) = [\sigma(B^-) - \sigma(B^+)] / [\sigma(B^-) + \sigma(B^+)]$

NODE=S041A03

Production asymmetries

VALUE (units 10^{-3})	DOCUMENT ID		TECN	COMMENT	
−5.7±1.7 OUR AVERAGE					
−7.0±0.8±3.1	[1] AAIJ	23U	LHCB	pp at 13 TeV	
−4.1±4.9±1.0	[2] AAIJ	17AP	LHCB	pp at 7 TeV	
−5.3±3.1±1.0	[2] AAIJ	17AP	LHCB	pp at 8 TeV	OCCUR=2
−2.3±2.4±3.7	[3] AAIJ	17BF	LHCB	pp at 7 TeV	
−7.4±1.5±3.2	[3] AAIJ	17BF	LHCB	pp at 8 TeV	OCCUR=2

[1] The second error includes the uncertainties from $A_{CP}(B^+ \to J/\psi K^+) = 0.0018 \pm 0.0030$. NODE=S041A03;LINKAGE=H

[2] AAIJ 17AP uses $B^+ \to \overline{D}^0 \pi^+$ decays with B^+ transverse momenta p_T and rapidities y in the region of $2 < p_T < 30$ GeV/c and $2.1 < y < 4.5$. NODE=S041A03;LINKAGE=A

[3] AAIJ 17BF uses $B^+ \to J/\psi K^+$ decays with B^+ transverse momenta p_T and rapidities y in the region of $0 < p_T < 30$ GeV/c and $2.1 < y < 4.5$. NODE=S041A03;LINKAGE=C

$B^{\pm}$ REFERENCES

NODE=S041

AAIJ	25E	PRL 135 021802	R. Aaij *et al.*	(LHCb Collab.)	REFID=63249
AAIJ	25F	PR D111 092009	R. Aaij *et al.*	(LHCb Collab.)	REFID=63268
AAIJ	25I	PRL 134 101801	R. Aaij *et al.*	(LHCb Collab.)	REFID=63318
AAIJ	25L	PRL 134 181803	R. Aaij *et al.*	(LHCb Collab.)	REFID=63340
AAIJ	25P	PR D111 092008	R. Aaij *et al.*	(LHCb Collab.)	REFID=63401
AAIJ	25Q	JHEP 2501 054	R. Aaij *et al.*	(LHCb Collab.)	REFID=63427
AAIJ	25R	JHEP 2502 113	R. Aaij *et al.*	(LHCb Collab.)	REFID=63443
AAIJ	25T	JHEP 2503 139	R. Aaij *et al.*	(LHCb Collab.)	REFID=63453
AAIJ	25Y	JHEP 2507 198	R. Aaij *et al.*	(LHCb Collab.)	REFID=63489
ADACHI	25G	PR D111 L071103	I. Adachi *et al.*	(BELLE and BELLE II Collab.)	REFID=63385
ADACHI	25I	PR D111 112009	I. Adachi *et al.*	(BELLE II Collab.)	REFID=63408
LEES	25	PR D111 L031101	J.P. Lees *et al.*	(BABAR Collab.)	REFID=63373
AAIJ	24AB	PRL 133 131902	R. Aaij *et al.*	(LHCb Collab.)	REFID=63014
AAIJ	24F	JHEP 2402 032	R. Aaij *et al.*	(LHCb Collab.)	REFID=62831
AAIJ	24H	JHEP 2402 118	R. Aaij *et al.*	(LHCb Collab.)	REFID=62835
AAIJ	24T	JHEP 2408 132	R. Aaij	(LHCb Collab.)	REFID=62879
AAIJ	24U	EPJ C84 206	R. Aaij *et al.*	(LHCb Collab.)	REFID=62884
ADACHI	24	PR D109 012001	I. Adachi *et al.*	(BELLE II Collab.)	REFID=62572
ADACHI	24B	PRL 132 211804	I. Adachi *et al.*	(BELLE II Collab.)	REFID=62729
ADACHI	24D	PR D109 L111103	I. Adachi *et al.*	(BELLE II Collab.)	REFID=62803
ADACHI	24E	PR D109 112006	I. Adachi *et al.*	(BELLE II Collab.)	REFID=62807
ADACHI	24I	JHEP 2405 212	I. Adachi *et al.*	(BELLE II, BELLE Collab.)	REFID=62857
ADACHI	24L	JHEP 2408 206	I. Adachi *et al.*	(BELLE II Collab.)	REFID=62947
ADACHI	24N	PRL 133 101804	I. Adachi *et al.*	(BELLE and BELLE II Collab.)	REFID=63043
ADACHI	24T	JHEP 2410 143	I. Adachi *et al.*	(BELLE II Collab.)	REFID=63129
GU	24	PRL 133 071802	T. Gu *et al.*	(BELLE Collab.)	REFID=62744
AAIJ	23AB	PRL 131 051803	R. Aaij *et al.*	(LHCb Collab.)	REFID=62318
Also		PR D108 032002	R. Aaij *et al.*	(LHCb Collab.)	REFID=62342
AAIJ	23AH	PR D108 032010	R. Aaij *et al.*	(LHCb Collab.)	REFID=62349
AAIJ	23AI	PR D108 034012	R. Aaij *et al.*	(LHCb Collab.)	REFID=62357
AAIJ	23AK	JHEP 2308 174	R. Aaij *et al.*	(LHCb Collab.)	REFID=62374
Also		JHEP 2308 174	R. Aaij *et al.*	(LHCb Collab.)	REFID=62374
AAIJ	23AR	PRL 131 111802	R. Aaij *et al.*	(LHCb Collab.)	REFID=62445
AAIJ	23AX	JHEP 2309 202	R. Aaij *et al.*	(LHCb Collab.)	REFID=62535
AAIJ	23B	PR D108 012017	R. Aaij *et al.*	(LHCb Collab.)	REFID=62091
AAIJ	23BA	JHEP 2312 013	R. Aaij *et al.*	(LHCb Collab.)	REFID=62543
AAIJ	23I	JHEP 2307 138	R. Aaij *et al.*	(LHCb Collab.)	REFID=62143
AAIJ	23N	EPJ C83 547	R. Aaij *et al.*	(LHCb Collab.)	REFID=62167
Also		EPJ C83 672 (errat.)	R. Aaij *et al.*	(LHCb Collab.)	REFID=62173
AAIJ	23Q	PRL 131 031901	R. Aaij *et al.*	(LHCb Collab.)	REFID=62234

AAIJ	23U	PR D108 012008	R. Aaij *et al.*	(LHCb Collab.)	REFID=62292
AAIJ	23V	PR D108 012013	R. Aaij *et al.*	(LHCb Collab.)	REFID=62296
AAIJ	23X	PR D108 012020	R. Aaij *et al.*	(LHCb Collab.)	REFID=62300
ADACHI	23L	JHEP 2309 146	I. Adachi *et al.*	(BELLE II Collab.)	REFID=62530
CHU	23	PR D108 112007	K.-N. Chu *et al.*	(BELLE Collab.)	REFID=62515
HSU	23	PR D107 032013	C.-L. Hsu *et al.*	(BELLE Collab.)	REFID=62250
KUMAR	23	PR D107 L031101	M. Kumar *et al.*	(BELLE Collab.)	REFID=62246
LAI	23	PRL 130 181804	Y.-T. Lai *et al.*	(BELLE Collab.)	REFID=62219
LEES	23C	PRL 131 201801	J.P. Lees *et al.*	(BABAR Collab.)	REFID=62465
MEIER	23	PR D107 092003	F. Meier *et al.*	(BELLE Collab.)	REFID=62272
PRIM	23	PR D108 012002	M.T. Prim *et al.*	(BELLE Collab.)	REFID=62303
WATANUKI	23	PRL 130 261802	S. Watanuki *et al.*	(BELLE Collab.)	REFID=62228
AAIJ	22D	JHEP 2204 046	R. Aaij *et al.*	(LHCb Collab.)	REFID=61647
AAIJ	22J	PRL 128 191802	R. Aaij *et al.*	(LHCb Collab.)	REFID=61677
AAIJ	22T	JHEP 2207 099	R. Aaij *et al.*	(LHCb Collab.)	REFID=61814
AAIJ	22V	NATP 18 277	R. Aaij *et al.*	(LHCb Collab.)	REFID=61862
ABUDINEN	22	JHEP 2202 063	F. Abudinen *et al.*	(BELLE and BELLE II Collab.)	REFID=61777
BLOOMFIELD	22	PR D105 072007	T. Bloomfield *et al.*	(BELLE Collab.)	REFID=61738
GEBAUER	22	PR D106 032013	U. Gebauer *et al.*	(BELLE Collab.)	REFID=61768
AAIJ	21AM	JHEP 2112 141	R. Aaij *et al.*	(LHCb Collab.)	REFID=61595
AAIJ	21H	PRL 126 091802	R. Aaij *et al.*	(LHCb Collab.)	REFID=61170
AAIJ	21J	PRL 126 161802	R. Aaij *et al.*	(LHCb Collab.)	REFID=61179
AAIJ	21L	JHEP 2102 169	R. Aaij *et al.*	(LHCb Collab.)	REFID=61281
AAIJ	21M	JHEP 2103 137	R. Aaij *et al.*	(LHCb Collab.)	REFID=61288
AAIJ	21Q	JHEP 2104 081	R. Aaij *et al.*	(LHCb Collab.)	REFID=61300
ABUDINEN	21	PRL 127 181802	F. Abudinen *et al.*	(BELLE II Collab.)	REFID=61503
BELENO	21	PR D103 112001	C. Beleno *et al.*	(BELLE Collab.)	REFID=61244
CAO	21A	PR D104 012008	L. Cao *et al.*	(BELLE Collab.)	REFID=61361
CHOUDHURY	21	JHEP 2103 105	S. Choudhury *et al.*	(BELLE Collab.)	REFID=61037
MOHANTY	21	PR D103 052013	S. Mohanty *et al.*	(BELLE Collab.)	REFID=61222
SIRUNYAN	21AC	JHEP 2104 124	A.M. Sirunyan *et al.*	(CMS Collab.)	REFID=61403
WEHLE	21	PRL 126 161801	S. Wehle *et al.*	(BELLE Collab.)	REFID=61178
AAIJ	20A	PRL 124 031801	R. Aaij *et al.*	(LHCb Collab.)	REFID=60209
Also		PR D101 012006	R. Aaij *et al.*	(LHCb Collab.)	REFID=60213
AAIJ	20AI	PR D102 112003	R. Aaij *et al.*	(LHCb Collab.)	REFID=60739
AAIJ	20AJ	PR D102 112010	R. Aaij *et al.*	(LHCb Collab.)	REFID=60745
AAIJ	20AN	JHEP 2012 139	R. Aaij *et al.*	(LHCb Collab.)	REFID=60765
AAIJ	20D	PR D101 032005	R. Aaij *et al.*	(LHCb Collab.)	REFID=60253
AAIJ	20K	JHEP 2003 146	R. Aaij *et al.*	(LHCb Collab.)	REFID=60485
AAIJ	20N	JHEP 2006 058	R. Aaij *et al.*	(LHCb Collab.)	REFID=60501
AAIJ	20P	JHEP 2006 129	R. Aaij *et al.*	(LHCb Collab.)	REFID=60504
AAIJ	20S	JHEP 2008 123	R. Aaij *et al.*	(LHCb Collab.)	REFID=60526
CHILIKIN	20	JHEP 2005 034	K. Chilikin *et al.*	(BELLE Collab.)	REFID=60493
CHU	20	PR D101 052012	K. Chu *et al.*	(BELLE Collab.)	REFID=60275
LEES	20C	PRL 124 152001	J.P. Lees *et al.*	(BABAR Collab.)	REFID=60554
PRIM	20	PR D101 032007	M.T. Prim *et al.*	(BELLE Collab.)	REFID=60255
AAIJ	19AC	PR D99 092009	R. Aaij *et al.*	(LHCb Collab.)	REFID=59879
AAIJ	19AL	PRL 123 231802	R. Aaij *et al.*	(LHCb Collab.)	REFID=60073
AAIJ	19AM	PRL 123 241802	R. Aaij *et al.*	(LHCb Collab.)	REFID=60076
AAIJ	19O	EPJ C79 537	R. Aaij *et al.*	(LHCb Collab.)	REFID=59731
AAIJ	19P	EPJ C79 675	R. Aaij *et al.*	(LHCb Collab.)	REFID=59736
AAIJ	19S	PRL 122 191801	R. Aaij *et al.*	(LHCb Collab.)	REFID=59781
BHARDWAJ	19	PR D99 111101	V. Bhardwaj *et al.*	(BELLE Collab.)	REFID=59884
CHILIKIN	19	PR D100 012001	K. Chilikin *et al.*	(BELLE Collab.)	REFID=59899
GARG	19	PR D99 071102	R. Garg *et al.*	(BELLE Collab.)	REFID=59851
KALIYAR	19	PR D99 031102	A.B. Kaliyar *et al.*	(BELLE Collab.)	REFID=59619
LEES	19C	PR D100 111101	J.P. Lees *et al.*	(BABAR Collab.)	REFID=60035
LI	19A	PRL 122 082001	Y.B. Li *et al.*	(BELLE Collab.)	REFID=59595
LI	19G	PR D100 112010	Y. Li *et al.*	(BELLE Collab.)	REFID=60044
LU	19	PR D99 032003	P.-C. Lu *et al.*	(BELLE Collab.)	REFID=59614
PDG	19	RPP 2019 at pdg.lbl.gov	M. Tanabashi *et al.*	(PDG Collab.)	REFID=59587
RESMI	19	JHEP 1910 178	P.K. Resmi *et al.*	(BELLE Collab.)	REFID=60088
SIRUNYAN	19CM	JHEP 1912 100	A.M. Sirunyan *et al.*	(CMS Collab.)	REFID=60101
WATANUKI	19	PR D99 032012	S. Watanuki *et al.*	(BELLE Collab.)	REFID=59618
AAIJ	18A	PL B777 16	R. Aaij *et al.*	(LHCb Collab.)	REFID=58624
AAIJ	18AD	JHEP 1808 176	R. Aaij *et al.*	(LHCb Collab.)	REFID=59138
Also		JHEP 1810 107 (errat.)	R. Aaij *et al.*	(LHCb Collab.)	REFID=59352
AAIJ	18B	JHEP 1801 131	R. Aaij *et al.*	(LHCb Collab.)	REFID=58793
AAIJ	18U	JHEP 1803 059	R. Aaij *et al.*	(LHCb Collab.)	REFID=59090
AAIJ	18W	JHEP 1805 160	R. Aaij *et al.*	(LHCb Collab.)	REFID=59099
AAIJ	18X	JHEP 1805 067	R. Aaij *et al.*	(LHCb Collab.)	REFID=59105
AAIJ	18Z	JHEP 1806 084	R. Aaij *et al.*	(LHCb Collab.)	REFID=59118
GELB	18	PR D98 112016	M. Gelb *et al.*	(BELLE Collab.)	REFID=59506
KATO	18	PR D97 012005	Y. Kato *et al.*	(BELLE Collab.)	REFID=58715
LI	18A	EPJ C78 252	Y.B. Li *et al.*	(BELLE Collab.)	REFID=59162
PDG	18	PR D98 030001	M. Tanabashi *et al.*	(PDG Collab.)	REFID=59304
RESMI	18	JHEP 1801 082	P.K. Resmi *et al.*		REFID=58790
SIBIDANOV	18	PRL 121 031801	A. Sibidanov *et al.*	(BELLE Collab.)	REFID=58854
SIRUNYAN	18DX	PR D98 112011	A.M. Sirunyan *et al.*	(CMS Collab.)	REFID=59501
VOSSEN	18	PR D98 012005	A. Vossen *et al.*	(BELLE Collab.)	REFID=58961
AAIJ	17	PR D95 012002	R. Aaij *et al.*	(LHCb Collab.)	REFID=57636
AAIJ	17AD	PL B769 305	R. Aaij *et al.*	(LHCb Collab.)	REFID=57896
AAIJ	17AP	PR D95 052005	R. Aaij *et al.*	(LHCb Collab.)	REFID=57969
AAIJ	17AQ	PR D95 071101	R. Aaij *et al.*	(LHCb Collab.)	REFID=57974
AAIJ	17AR	PR D96 011101	R. Aaij *et al.*	(LHCb Collab.)	REFID=58007
AAIJ	17BF	PL B774 139	R. Aaij *et al.*	(LHCb Collab.)	REFID=58252
AAIJ	17BO	JHEP 1711 156	R. Aaij *et al.*	(LHCb Collab.)	REFID=58343
AAIJ	17E	PL B765 307	R. Aaij *et al.*	(LHCb Collab.)	REFID=57708
AAIJ	17K	EPJ C77 72	R. Aaij *et al.*	(LHCb Collab.)	REFID=57766
AAIJ	17O	JHEP 1703 036	R. Aaij *et al.*	(LHCb Collab.)	REFID=57798
AAIJ	17R	JHEP 1704 162	R. Aaij *et al.*	(LHCb Collab.)	REFID=57811
AAIJ	17Y	EPJ C77 161	R. Aaij *et al.*	(LHCb Collab.)	REFID=57846
ABAZOV	17A	PR D95 031101	V.M. Abazov *et al.*	(D0 Collab.)	REFID=57641
BELENO	17	PR D96 091102	C. Beleno *et al.*	(BELLE Collab.)	REFID=58303
GRYGIER	17	PR D96 091101	J. Grygier *et al.*	(BELLE Collab.)	REFID=58302
HORIGUCHI	17	PRL 119 191802	T. Horiguchi *et al.*	(BELLE Collab.)	REFID=58275
HSU	17	PR D96 031101	C.-L. Hsu *et al.*	(BELLE Collab.)	REFID=58025
KHACHATRY...	17C	PL B764 66	V. Khachatryan *et al.*	(CMS Collab.)	REFID=57701
LEES	17	PRL 118 031802	J.P. Lees *et al.*	(BABAR Collab.)	REFID=57762

LEES	17G	PR D96 072001	J.P. Lees *et al.*	(BABAR Collab.)	REFID=58299
AABOUD	16L	EPJ C76 513	M. Aaboud *et al.*	(ATLAS Collab.)	REFID=57469
AAIJ	16AA	JHEP 1608 137	R. Aaij *et al.*	(LHCb Collab.)	REFID=57349
AAIJ	16AH	PR D94 072001	R. Aaij *et al.*	(LHCb Collab.)	REFID=57518
AAIJ	16AQ	JHEP 1612 087	R. Aaij *et al.*	(LHCb Collab.)	REFID=57665
AAIJ	16L	PL B760 117	R. Aaij *et al.*	(LHCb Collab.)	REFID=57241
AAIJ	16M	PR D93 051101	R. Aaij *et al.*	(LHCb Collab.)	REFID=57259
AAIJ	16R	PR D93 119902	R. Aaij *et al.*	(LHCb Collab.)	REFID=57290
AAIJ	16Z	JHEP 1606 131	R. Aaij *et al.*	(LHCb Collab.)	REFID=57338
BHARDWAJ	16	PR D93 052016	V. Bhardwaj *et al.*	(BELLE Collab.)	REFID=57272
DEL-AMO-SA...	16	PR D93 052013	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=57269
LEES	16	PRL 116 041801	J.P. Lees *et al.*	(BABAR Collab.)	REFID=57108
PDG	16	CP C40 100001	C. Patrignani *et al.*	(PDG Collab.)	REFID=57140
AAIJ	15AR	JHEP 1510 034	R. Aaij *et al.*	(LHCb Collab.)	REFID=56856
AAIJ	15BC	PR D92 112005	R. Aaij *et al.*	(LHCb Collab.)	REFID=57012
AAIJ	15K	PL B741 1	R. Aaij *et al.*	(LHCb Collab.)	REFID=56383
AAIJ	15O	PRL 115 051801	R. Aaij *et al.*	(LHCb Collab.)	REFID=56483
AAIJ	15V	PR D91 092002	R. Aaij *et al.*	(LHCb Collab.)	REFID=56575
Also		PR D93 119901 (errat.)	R. Aaij *et al.*	(LHCb Collab.)	REFID=57289
AAIJ	15W	PR D91 112014	R. Aaij *et al.*	(LHCb Collab.)	REFID=56587
ABAZOV	15	PRL 114 051803	V.M. Abazov *et al.*	(D0 Collab.)	REFID=56379
BALA	15	PR D91 051101	A. Bala *et al.*	(BELLE Collab.)	REFID=56408
CHOI	15A	PR D91 092011	S.-K. Choi *et al.*	(BELLE Collab.)	REFID=56577
GOH	15	PR D91 071101	Y.M. Goh *et al.*	(BELLE Collab.)	REFID=56560
HELLER	15	PR D91 112009	A. Heller *et al.*	(BELLE Collab.)	REFID=56586
KRONENBIT...	15	PR D92 051102	B. Kronenbitter *et al.*	(BELLE Collab.)	REFID=56877
LEES	15	PR D91 012003	J.P. Lees *et al.*	(BABAR Collab.)	REFID=56289
LEES	15C	PR D91 052002	J.P. Lees *et al.*	(BABAR Collab.)	REFID=56412
VINOKUROVA	15	JHEP 1506 132	A. Vinokurova *et al.*	(BELLE Collab.)	REFID=56706
Also		JHEP 1702 088 (errat.)	A. Vinokurava *et al.*	(BELLE Collab.)	REFID=57795
WIECHCZYN...	15	PR D91 032008	J. Wiechczynski *et al.*	(BELLE Collab.)	REFID=56407
YOOK	15	PR D91 052016	Y. Yook *et al.*	(BELLE Collab.)	REFID=56552
AAIJ	14	PRL 112 011801	R. Aaij *et al.*	(LHCb Collab.)	REFID=55622
AAIJ	14A	PL B728 85	R. Aaij *et al.*	(LHCb Collab.)	REFID=55625
AAIJ	14AC	PRL 112 131802	R. Aaij *et al.*	(LHCb Collab.)	REFID=55845
AAIJ	14AF	PRL 113 141801	R. Aaij *et al.*	(LHCb Collab.)	REFID=55891
Also		PRL 134 179901 (errat.)	R. Aaij *et al.*	(LHCb Collab.)	REFID=63576
AAIJ	14AN	JHEP 1409 177	R. Aaij *et al.*	(LHCb Collab.)	REFID=56009
AAIJ	14AR	PRL 113 151601	R. Aaij *et al.*	(LHCb Collab.)	REFID=56070
AAIJ	14AZ	JHEP 1410 064	R. Aaij *et al.*	(LHCb Collab.)	REFID=56164
AAIJ	14BA	JHEP 1410 097	R. Aaij *et al.*	(LHCb Collab.)	REFID=56167
AAIJ	14BE	NP B888 169	R. Aaij *et al.*	(LHCb Collab.)	REFID=56187
AAIJ	14BF	JHEP 1411 060	R. Aaij *et al.*	(LHCb Collab.)	REFID=56197
AAIJ	14BO	PR D90 112004	R. Aaij *et al.*	(LHCb Collab.)	REFID=56330
AAIJ	14E	JHEP 1404 114	R. Aaij *et al.*	(LHCb Collab.)	REFID=55689
AAIJ	14M	JHEP 1406 133	R. Aaij *et al.*	(LHCb Collab.)	REFID=55726
AAIJ	14O	JHEP 1405 082	R. Aaij *et al.*	(LHCb Collab.)	REFID=55728
AAIJ	14V	PL B733 36	R. Aaij *et al.*	(LHCb Collab.)	REFID=55764
ABAZOV	14A	PR D89 012004	V.M. Abazov *et al.*	(D0 Collab.)	REFID=55650
CHOBANOVA	14	PR D90 012002	V. Chobanova *et al.*	(BELLE Collab.)	REFID=55819
IWASHITA	14	PTEP 2014 043C01	T. Iwashita *et al.*	(BELLE Collab.)	REFID=55925
LEES	14A	PR D89 011102	J.P. Lees *et al.*	(BABAR Collab.)	REFID=55691
TIEN	14	PR D89 011101	K.-J. Tien *et al.*	(BELLE Collab.)	REFID=55620
AAIJ	13AE	PL B723 44	R. Aaij *et al.*	(LHCb Collab.)	REFID=55082
AAIJ	13AK	PL B726 151	R. Aaij *et al.*	(LHCb Collab.)	REFID=55097
AAIJ	13AP	PR D87 092007	R. Aaij *et al.*	(LHCb Collab.)	REFID=55150
AAIJ	13AR	PR D87 112010	R. Aaij *et al.*	(LHCb Collab.)	REFID=55159
AAIJ	13AU	PR D88 052015	R. Aaij *et al.*	(LHCb Collab.)	REFID=55193
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AAIJ	13BN	PRL 111 151801	R. Aaij *et al.*	(LHCb Collab.)	REFID=55414
AAIJ	13BS	PL B726 646	R. Aaij *et al.*	(LHCb Collab.)	REFID=55438
AAIJ	13H	JHEP 1302 105	R. Aaij *et al.*	(LHCb Collab.)	REFID=54859
AAIJ	13R	JHEP 1302 043	R. Aaij *et al.*	(LHCb Collab.)	REFID=54991
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AAIJ	13Z	JHEP 1309 006	R. Aaij *et al.*	(LHCb Collab.)	REFID=55048
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DUH	13	PR D87 031103	Y. T. Duh *et al.*	(BELLE Collab.)	REFID=54957
HARA	13	PRL 110 131801	K. Hara *et al.*	(BELLE Collab.)	REFID=54961
LEES	13A	PR D87 032004	J.P. Lees *et al.*	(BABAR Collab.)	REFID=54854
LEES	13B	PR D87 052015	J.P. Lees *et al.*	(BABAR Collab.)	REFID=54948
LEES	13I	PR D87 112005	J.P. Lees *et al.*	(BABAR Collab.)	REFID=55161
LEES	13K	PR D88 031102	J.P. Lees *et al.*	(BABAR Collab.)	REFID=55166
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LEES	13T	PR D88 072006	J.P. Lees *et al.*	(BABAR Collab.)	REFID=55458
LUTZ	13	PR D87 111103	O. Lutz *et al.*	(BELLE Collab.)	REFID=55147
NAYAK	13	PR D88 091104	M. Nayak *et al.*	(BELLE Collab.)	REFID=55486
SIBIDANOV	13	PR D88 032005	A. Sibidanov *et al.*	(BELLE Collab.)	REFID=55176
AAIJ	12AA	PR D85 091103	R. Aaij *et al.*	(LHCb Collab.)	REFID=54263
AAIJ	12AC	PR D85 091105	R. Aaij *et al.*	(LHCb Collab.)	REFID=54372
AAIJ	12AD	PR D85 112004	R. Aaij *et al.*	(LHCb Collab.)	REFID=54373
AAIJ	12AH	JHEP 1207 133	R. Aaij *et al.*	(LHCb Collab.)	REFID=54472
AAIJ	12AQ	PL B718 43	R. Aaij *et al.*	(LHCb Collab.)	REFID=54594
AAIJ	12AY	JHEP 1212 125	R. Aaij *et al.*	(LHCb Collab.)	REFID=54766
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AAIJ	12E	PL B708 241	R. Aaij *et al.*	(LHCb Collab.)	REFID=54043
AAIJ	12L	EPJ C72 2118	R. Aaij *et al.*	(LHCb Collab.)	REFID=54136
AAIJ	12M	PL B712 203	R. Aaij *et al.*	(LHCb Collab.)	REFID=54173
Also		PL B713 351 (errat.)	R. Aaij *et al.*	(LHCb Collab.)	REFID=54174
AAIJ	12T	PRL 108 161801	R. Aaij *et al.*	(LHCb Collab.)	REFID=54214
AIHARA	12	PR D85 112014	H. Aihara *et al.*	(BELLE Collab.)	REFID=54412
DEL-AMO-SA...	12	PR D85 092017	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=54286
HOI	12	PRL 108 031801	C.-T. Hoi *et al.*	(BELLE Collab.)	REFID=54011
KIM	12A	PR D86 031101	J.H. Kim *et al.*	(BELLE Collab.)	REFID=54426
LEES	12AA	PR D86 092004	J.P. Lees *et al.*	(BABAR Collab.)	REFID=54717
LEES	12B	PR D85 052003	J.P. Lees *et al.*	(BABAR Collab.)	REFID=54042
LEES	12D	PRL 109 101802	J.P. Lees *et al.*	(BABAR Collab.)	REFID=54261
Also		PR D88 072012	J.P. Lees *et al.*	(BABAR Collab.)	REFID=55461
LEES	12J	PR D85 071103	J.P. Lees *et al.*	(BABAR Collab.)	REFID=54377

LEES	12O	PR D85 112010	J.P. Lees *et al.*	(BABAR Collab.)	REFID=54382
LEES	12P	PR D86 012004	J.P. Lees *et al.*	(BABAR Collab.)	REFID=54383
LEES	12S	PR D86 032012	J.P. Lees *et al.*	(BABAR Collab.)	REFID=54386
LEES	12Z	PR D86 091102	J.P. Lees *et al.*	(BABAR Collab.)	REFID=54716
PDG	12	PR D86 010001	J. Beringer *et al.*	(PDG Collab.)	REFID=54066
STYPULA	12	PR D86 072007	J. Stypula *et al.*	(BELLE Collab.)	REFID=54633
AAIJ	11E	PR D84 092001	R. Aaij *et al.*	(LHCb Collab.)	REFID=53856
Also		PR D85 039904 (errat.)	R. Aaij *et al.*	(LHCb Collab.)	REFID=54371
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AALTONEN	11AJ	PR D84 091504	T. Aaltonen *et al.*	(CDF Collab.)	REFID=53889
AALTONEN	11B	PR D83 032008	T. Aaltonen *et al.*	(CDF Collab.)	REFID=16323
AALTONEN	11L	PRL 106 161801	T. Aaltonen *et al.*	(CDF Collab.)	REFID=16443
AUSHEV	11	PR D83 051102	T. Aushev *et al.*	(BELLE Collab.)	REFID=16505
BHARDWAJ	11	PRL 107 091803	V. Bhardwaj *et al.*	(BELLE Collab.)	REFID=53779
CHEN	11F	PR D84 071501	P. Chen *et al.*	(BELLE Collab.)	REFID=53814
CHOI	11	PR D84 052004	S.-K. Choi *et al.*	(BELLE Collab.)	REFID=53934
DEL-AMO-SA...	11B	PR D83 032004	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=53665
DEL-AMO-SA...	11C	PR D83 032007	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=53666
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DEL-AMO-SA...	11F	PR D83 052011	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=53673
DEL-AMO-SA...	11K	PR D83 091101	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=16497
DEL-AMO-SA...	11L	PRL 107 041804	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=16499
GULER	11	PR D83 032005	H. Guler *et al.*	(BELLE Collab.)	REFID=53668
HORII	11	PRL 106 231803	Y. Horii *et al.*	(BELLE Collab.)	REFID=16649
LEES	11A	PR D84 012001	J.P. Lees *et al.*	(BABAR Collab.)	REFID=16595
LEES	11D	PR D84 012002	J.P. Lees *et al.*	(BABAR Collab.)	REFID=53751
LEES	11I	PR D84 092007	J.P. Lees *et al.*	(BABAR Collab.)	REFID=53891
SAHOO	11A	PR D84 071101	H. Sahoo *et al.*	(BELLE Collab.)	REFID=53810
SEON	11	PR D84 071106	O. Seon *et al.*	(BELLE Collab.)	REFID=53812
VINOKUROVA	11	PL B706 139	A. Vinokurova *et al.*	(BELLE Collab.)	REFID=53927
AALTONEN	10A	PR D81 031105	T. Aaltonen *et al.*	(CDF Collab.)	REFID=53239
AUBERT	10	PRL 104 011802	B. Aubert *et al.*	(BABAR Collab.)	REFID=53189
AUBERT	10D	PR D81 052009	B. Aubert *et al.*	(BABAR Collab.)	REFID=53217
AUBERT	10E	PR D81 051101	B. Aubert *et al.*	(BABAR Collab.)	REFID=53218
BOZEK	10	PR D82 072005	A. BOZEK *et al.*	(BELLE Collab.)	REFID=53454
DEL-AMO-SA...	10A	PR D82 011502	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=53325
DEL-AMO-SA...	10B	PR D82 011101	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=53362
DEL-AMO-SA...	10F	PRL 105 121801	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=53413
DEL-AMO-SA...	10G	PR D82 072004	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=53455
DEL-AMO-SA...	10H	PR D82 072006	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=53456
DEL-AMO-SA...	10I	PR D82 091101	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=53457
DEL-AMO-SA...	10K	PR D82 092006	P. del Amo Sanchez *et al.*	(BABAR Collab.)	REFID=53459
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HARA	10	PR D82 071101	K. Hara *et al.*	(BELLE Collab.)	REFID=53464
LIBBY	10	PR D82 112006	J. Libby *et al.*	(CLEO Collab.)	REFID=53583
POLUEKTOV	10	PR D81 112002	A. Poluektov *et al.*	(BELLE Collab.)	REFID=53340
SAKAI	10	PR D82 091104	K. Sakai *et al.*	(BELLE Collab.)	REFID=53473
WEDD	10	PR D81 111104	R. Wedd *et al.*	(BELLE Collab.)	REFID=53344
AALTONEN	09B	PR D79 011104	T. Aaltonen *et al.*	(CDF Collab.)	REFID=52686
ABAZOV	09Y	PR D79 111102	V.M. Abazov *et al.*	(D0 Collab.)	REFID=52939
ABULENCIA	09	PR D79 112003	A. Abulencia *et al.*	(CDF Collab.)	REFID=52950
AUBERT	09	PR D79 011102	B. Aubert *et al.*	(BABAR Collab.)	REFID=52639
AUBERT	09A	PR D79 012002	B. Aubert *et al.*	(BABAR Collab.)	REFID=52640
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CHANG	09	PR D79 052006	Y.-W. Chang *et al.*	(BELLE Collab.)	REFID=52822
CHEN	09C	PR D80 111103	P. Chen *et al.*	(BELLE Collab.)	REFID=53177
LIU	09	PR D79 071102	C. Liu *et al.*	(BELLE Collab.)	REFID=52752
WEI	09A	PRL 103 171801	J.-T. Wei *et al.*	(BELLE Collab.)	REFID=53061
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WIECHCZYN...	09	PR D80 052005	J. Wiechczynski *et al.*	(BELLE Collab.)	REFID=53033
ABAZOV	08O	PRL 100 211802	V.M. Abazov *et al.*	(D0 Collab.)	REFID=52393
ADACHI	08	PR D77 091101	I. Adachi *et al.*	(BELLE Collab.)	REFID=52344
AUBERT	08A	PR D77 011101	B. Aubert *et al.*	(BABAR Collab.)	REFID=52119
AUBERT	08AA	PR D77 111102	B. Aubert *et al.*	(BABAR Collab.)	REFID=52353
AUBERT	08AB	PR D78 012006	B. Aubert *et al.*	(BABAR Collab.)	REFID=52267
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AUBERT	08X	PRL 101 091801	B. Aubert *et al.*	(BABAR Collab.)	REFID=52264
AUBERT	08Y	PR D77 111101	B. Aubert *et al.*	(BABAR Collab.)	REFID=52265
BHARDWAJ	08	PR D78 051104	V. Bhardwaj *et al.*	(BELLE Collab.)	REFID=52425
BRODZICKA	08	PRL 100 092001	J. Brodzicka *et al.*	(BELLE Collab.)	REFID=52144
CHEN	08C	PRL 100 251801	J.-H. Chen *et al.*	(BELLE Collab.)	REFID=52442
HORII	08	PR D78 071901	Y. Horii *et al.*	(BELLE Collab.)	REFID=52533
IWABUCHI	08	PRL 101 041601	M. Iwabuchi *et al.*	(BELLE Collab.)	REFID=52445
LIN	08	NAT 452 332	S.-W. Lin *et al.*	(BELLE Collab.)	REFID=52509
LIVENTSEV	08	PR D77 091503	D. Liventsev *et al.*	(BELLE Collab.)	REFID=52230
PDG	08	PL B667 1	C. Amsler *et al.*	(PDG Collab.)	REFID=52166
TANIGUCHI	08	PRL 101 111801	N. Taniguchi *et al.*	(BELLE Collab.)	REFID=52449
WEI	08	PL B659 80	J.-T. Wei *et al.*	(BELLE Collab.)	REFID=52086
WEI	08A	PR D78 011101	J.-T. Wei *et al.*	(BELLE Collab.)	REFID=52409
WICHT	08	PL B662 323	J. Wicht *et al.*	(BELLE Collab.)	REFID=52204
ADAM	07	PRL 99 041802	N.E. Adam *et al.*	(CLEO Collab.)	REFID=51868
Also		PR D76 012007	D.M. Asner *et al.*	(CLEO Collab.)	REFID=51855
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AUBERT	07AL	PR D76 052002	B. Aubert *et al.*	(BABAR Collab.)	REFID=51937
AUBERT	07AN	PR D76 051101	B. Aubert *et al.*	(BABAR Collab.)	REFID=51930
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AUBERT	07AZ	PRL 99 201801	B. Aubert *et al.*	(BABAR Collab.)	REFID=51986
AUBERT	07BA	PRL 99 201802	B. Aubert *et al.*	(BABAR Collab.)	REFID=51987
AUBERT	07BB	PRL 99 221801	B. Aubert *et al.*	(BABAR Collab.)	REFID=51988
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AUBERT	07BJ	PRL 99 251801	B. Aubert *et al.*	(BABAR Collab.)	REFID=52093
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AUBERT	07X	PR D75 091103	B. Aubert *et al.*	(BABAR Collab.)	REFID=51791
AUBERT	07Z	PR D76 011103	B. Aubert *et al.*	(BABAR Collab.)	REFID=51850
CHANG	07B	PR D75 071104	P. Chang *et al.*	(BELLE Collab.)	REFID=51784
CHEN	07D	PRL 99 221802	K.-F. Chen *et al.*	(BELLE Collab.)	REFID=52024
HOKUUE	07	PL B648 139	T. Hokuue *et al.*	(BELLE Collab.)	REFID=51672
LIN	07	PRL 98 181804	S.-W. Lin *et al.*	(BELLE Collab.)	REFID=51752
LIN	07A	PRL 99 121601	S.-W. Lin *et al.*	(BELLE Collab.)	REFID=51921
SATOYAMA	07	PL B647 67	N. Satoyama *et al.*	(BELLE Collab.)	REFID=51649
SCHUEMANN	07	PR D75 092002	J. Schuemann *et al.*	(BELLE Collab.)	REFID=51793
TSAI	07	PR D75 111101	Y.-T. Tsai *et al.*	(BELLE Collab.)	REFID=51800
URQUIJO	07	PR D75 032001	P. Urquijo *et al.*	(BELLE Collab.)	REFID=51647
WANG	07B	PR D75 092005	C.H. Wang *et al.*	(BELLE Collab.)	REFID=51796
WANG	07C	PR D76 052004	M.-Z. Wang *et al.*	(BELLE Collab.)	REFID=51935
XIE	07	PR D75 017101	Q.L. Xie *et al.*	(BELLE Collab.)	REFID=51732
ABE	06	PR D73 051106	K. Abe *et al.*	(BELLE Collab.)	REFID=51095
ABULENCIA	06J	PRL 96 191801	A. Abulencia *et al.*	(CDF Collab.)	REFID=51210
ACOSTA	06	PRL 96 202001	D. Acosta *et al.*	(CDF Collab.)	REFID=51231
AUBERT	06	PR D73 011101	B. Aubert *et al.*	(BABAR Collab.)	REFID=51017
AUBERT	06E	PRL 96 052002	B. Aubert *et al.*	(BABAR Collab.)	REFID=51059
AUBERT	06F	PR D73 011103	B. Aubert *et al.*	(BABAR Collab.)	REFID=51086
AUBERT	06J	PR D73 051105	B. Aubert *et al.*	(BABAR Collab.)	REFID=51091
AUBERT	06K	PR D73 057101	B. Aubert *et al.*	(BABAR Collab.)	REFID=51092
AUBERT	06N	PR D74 031103	B. Aubert *et al.*	(BABAR Collab.)	REFID=51142
AUBERT	06O	PR D74 032003	B. Aubert *et al.*	(BABAR Collab.)	REFID=51141
AUBERT	06Z	PR D73 111104	B. Aubert *et al.*	(BABAR Collab.)	REFID=51279
AUBERT,B	06A	PR D73 112004	B. Aubert *et al.*	(BABAR Collab.)	REFID=51283
AUBERT,B	06C	PR D74 011102	B. Aubert *et al.*	(BABAR Collab.)	REFID=51289
AUBERT,B	06E	PR D74 011106	B. Aubert *et al.*	(BABAR Collab.)	REFID=51291
AUBERT,B	06G	PRL 97 201801	B. Aubert *et al.*	(BABAR Collab.)	REFID=51485
AUBERT,B	06H	PRL 97 201802	B. Aubert *et al.*	(BABAR Collab.)	REFID=51486
AUBERT,B	06J	PR D73 092001	B. Aubert *et al.*	(BABAR Collab.)	REFID=51305
AUBERT,B	06M	PR D74 031102	B. Aubert *et al.*	(BABAR Collab.)	REFID=51317
AUBERT,B	06P	PR D74 031105	B. Aubert *et al.*	(BABAR Collab.)	REFID=51320
AUBERT,B	06T	PR D74 051102	B. Aubert *et al.*	(BABAR Collab.)	REFID=51324
AUBERT,B	06U	PR D74 051104	B. Aubert *et al.*	(BABAR Collab.)	REFID=51325
AUBERT,B	06Y	PR D74 091105	B. Aubert *et al.*	(BABAR Collab.)	REFID=51498
AUBERT,BE	06A	PR D74 099903 (errat.)	B. Aubert *et al.*	(BABAR Collab.)	REFID=51506
AUBERT,BE	06C	PRL 97 171805	B. Aubert *et al.*	(BABAR Collab.)	REFID=51436
AUBERT,BE	06G	PRL 97 261801	B. Aubert *et al.*	(BABAR Collab.)	REFID=51570
AUBERT,BE	06H	PRL 97 261803	B. Aubert *et al.*	(BABAR Collab.)	REFID=51571
AUBERT,BE	06J	PR D74 111102	B. Aubert *et al.*	(BABAR Collab.)	REFID=51586
AUBERT,BE	06M	PR D74 071101	B. Aubert *et al.*	(BABAR Collab.)	REFID=51454
CHISTOV	06A	PR D74 111105	R. Chistov *et al.*	(BELLE Collab.)	REFID=51588
FANG	06	PR D74 012007	F. Fang *et al.*	(BELLE Collab.)	REFID=51159
GABYSHEV	06	PRL 97 202003	N. Gabyshev *et al.*	(BELLE Collab.)	REFID=51488
GABYSHEV	06A	PRL 97 242001	N. Gabyshev *et al.*	(BELLE Collab.)	REFID=51565
GARMASH	06	PRL 96 251803	A. Garmash *et al.*	(BELLE Collab.)	REFID=51162
IKADO	06	PRL 97 251802	K. Ikado *et al.*	(BELLE Collab.)	REFID=51572

JEN	06	PR D74 111101	C.-M. Jen *et al.*	(BELLE Collab.)	REFID=51573
KUMAR	06	PR D74 051103	R. Kumar *et al.*	(BELLE Collab.)	REFID=51338
MOHAPATRA	06	PRL 96 221601	D. Mohapatra *et al.*	(BELLE Collab.)	REFID=51235
POLUEKTOV	06	PR D73 112009	A. Poluektov *et al.*	(BELLE Collab.)	REFID=51287
SCHUEMANN	06	PRL 97 061802	J. Schuemann *et al.*	(BELLE Collab.)	REFID=51250
SONI	06	PL B634 155	N. Soni *et al.*	(BELLE Collab.)	REFID=51093
ABE	05A	PRL 94 221805	K. Abe *et al.*	(BELLE Collab.)	REFID=50755
ABE	05B	PR D71 072003	K. Abe *et al.*	(BELLE Collab.)	REFID=50517
Also		PR D71 079903 (errat.)	K. Abe *et al.*	(BELLE Collab.)	REFID=50555
ABE	05G	PRL 95 231802	K. Abe *et al.*	(BELLE Collab.)	REFID=50936
ACOSTA	05J	PRL 95 031801	D. Acosta *et al.*	(CDF Collab.)	REFID=50685
AUBERT	05	PRL 94 011801	B. Aubert *et al.*	(BABAR Collab.)	REFID=50366
AUBERT	05B	PR D71 031501	B. Aubert *et al.*	(BABAR Collab.)	REFID=50498
AUBERT	05G	PR D72 032004	B. Aubert *et al.*	(BABAR Collab.)	REFID=50572
AUBERT	05H	PRL 94 101801	B. Aubert *et al.*	(BABAR Collab.)	REFID=50581
AUBERT	05J	PRL 94 141801	B. Aubert *et al.*	(BABAR Collab.)	REFID=50590
AUBERT	05K	PRL 94 171801	B. Aubert *et al.*	(BABAR Collab.)	REFID=50591
AUBERT	05L	PRL 94 181802	B. Aubert *et al.*	(BABAR Collab.)	REFID=50593
AUBERT	05M	PRL 94 191802	B. Aubert *et al.*	(BABAR Collab.)	REFID=50606
AUBERT	05N	PR D71 031102	B. Aubert *et al.*	(BABAR Collab.)	REFID=50616
AUBERT	05O	PR D71 031103	B. Aubert *et al.*	(BABAR Collab.)	REFID=50617
AUBERT	05R	PR D71 071103	B. Aubert *et al.*	(BABAR Collab.)	REFID=50627
AUBERT	05U	PR D71 091103	B. Aubert *et al.*	(BABAR Collab.)	REFID=50635
AUBERT	05X	PR D71 111101	B. Aubert *et al.*	(BABAR Collab.)	REFID=50662
AUBERT,B	05B	PRL 95 041804	B. Aubert *et al.*	(BABAR Collab.)	REFID=50688
AUBERT,B	05E	PR D72 011102	B. Aubert *et al.*	(BABAR Collab.)	REFID=50701
AUBERT,B	05G	PR D72 052002	B. Aubert *et al.*	(BABAR Collab.)	REFID=50775
AUBERT,B	05K	PRL 95 131803	B. Aubert *et al.*	(BABAR Collab.)	REFID=50826
AUBERT,B	05L	PR D72 051101	B. Aubert *et al.*	(BABAR Collab.)	REFID=50827
AUBERT,B	05N	PR D72 072003	B. Aubert *et al.*	(BABAR Collab.)	REFID=50838
Also		PR D74 099903 (errat.)	B. Aubert *et al.*	(BABAR Collab.)	REFID=51506
AUBERT,B	05O	PR D72 051102	B. Aubert *et al.*	(BABAR Collab.)	REFID=50892
AUBERT,B	05T	PR D72 071102	B. Aubert *et al.*	(BABAR Collab.)	REFID=50898
AUBERT,B	05U	PR D72 071103	B. Aubert *et al.*	(BABAR Collab.)	REFID=50897
AUBERT,B	05V	PR D72 071104	B. Aubert *et al.*	(BABAR Collab.)	REFID=50900
AUBERT,B	05Y	PRL 95 121802	B. Aubert *et al.*	(BABAR Collab.)	REFID=50919
AUBERT,BE	05E	PRL 95 221801	B. Aubert *et al.*	(BABAR Collab.)	REFID=50948
CHANG	05	PR D71 072007	M.-C. Chang *et al.*	(BELLE Collab.)	REFID=50631
CHANG	05A	PR D71 091106	P. Chang *et al.*	(BELLE Collab.)	REFID=50638
CHAO	05A	PR D71 031502	Y. Chao *et al.*	(BELLE Collab.)	REFID=50619
CHEN	05A	PRL 94 221804	K.-F. Chen *et al.*	(BELLE Collab.)	REFID=50659
GARMASH	05	PR D71 092003	A. Garmash *et al.*	(BELLE Collab.)	REFID=50641
ITOH	05	PRL 95 091601	R. Itoh *et al.*	(BELLE Collab.)	REFID=50559
LEE	05	PRL 95 061802	Y.-J. Lee *et al.*	(BELLE Collab.)	REFID=50696
LIVENTSEV	05	PR D72 051109	D. Liventsev *et al.*	(BELLE Collab.)	REFID=50903
MAJUMDER	05	PRL 95 041803	G. Majumder *et al.*	(BELLE Collab.)	REFID=50689
MOHAPATRA	05	PR D72 011101	D. Mohapatra *et al.*	(BELLE Collab.)	REFID=50700
NISHIDA	05	PL B610 23	S. Nishida *et al.*	(BELLE Collab.)	REFID=50596
OKABE	05	PL B614 27	T. Okabe *et al.*	(BELLE Collab.)	REFID=50601
SAIGO	05	PRL 94 091601	M. Saigo *et al.*	(BELLE Collab.)	REFID=50579
WANG	05A	PL B617 141	M.-Z. Wang *et al.*	(BELLE Collab.)	REFID=50651
XIE	05	PR D72 051105	Q.L. Xie *et al.*	(BELLE Collab.)	REFID=50902
YANG	05	PRL 94 111802	H. Yang *et al.*	(BELLE Collab.)	REFID=50585
ZHANG	05A	PRL 94 031801	J. Zhang *et al.*	(BELLE Collab.)	REFID=50486
ZHANG	05B	PR D71 091107	L.M. Zhang *et al.*	(BELLE Collab.)	REFID=50639
ZHANG	05D	PRL 95 141801	J. Zhang *et al.*	(BELLE Collab.)	REFID=50825
ABDALLAH	04E	EPJ C33 307	J. Abdallah *et al.*	(DELPHI Collab.)	REFID=49917
ABE	04D	PR D69 112002	K. Abe *et al.*	(BELLE Collab.)	REFID=50011
AUBERT	04A	PR D69 011102	B. Aubert *et al.*	(BABAR Collab.)	REFID=49719
AUBERT	04C	PRL 92 111801	B. Aubert *et al.*	(BABAR Collab.)	REFID=49670
AUBERT	04H	PRL 92 061801	B. Aubert *et al.*	(BABAR Collab.)	REFID=49867
AUBERT	04K	PRL 92 141801	B. Aubert *et al.*	(BABAR Collab.)	REFID=49926
AUBERT	04M	PRL 92 201802	B. Aubert *et al.*	(BABAR Collab.)	REFID=49928
AUBERT	04N	PRL 92 202002	B. Aubert *et al.*	(BABAR Collab.)	REFID=49929
AUBERT	04O	PRL 92 221803	B. Aubert *et al.*	(BABAR Collab.)	REFID=49930
AUBERT	04P	PRL 92 241802	B. Aubert *et al.*	(BABAR Collab.)	REFID=49931
AUBERT	04Q	PR D69 051101	B. Aubert *et al.*	(BABAR Collab.)	REFID=49954
AUBERT	04T	PR D69 071103	B. Aubert *et al.*	(BABAR Collab.)	REFID=49958
AUBERT	04Y	PRL 93 041801	B. Aubert *et al.*	(BABAR Collab.)	REFID=49997
AUBERT	04Z	PRL 93 051802	B. Aubert *et al.*	(BABAR Collab.)	REFID=50001
AUBERT,B	04B	PR D70 011101	B. Aubert *et al.*	(BABAR Collab.)	REFID=50043
AUBERT,B	04D	PR D70 032006	B. Aubert *et al.*	(BABAR Collab.)	REFID=50051
AUBERT,B	04L	PRL 93 131804	B. Aubert *et al.*	(BABAR Collab.)	REFID=50087
AUBERT,B	04P	PR D70 092001	B. Aubert *et al.*	(BABAR Collab.)	REFID=50193
AUBERT,B	04S	PRL 93 181801	B. Aubert *et al.*	(BABAR Collab.)	REFID=50195
AUBERT,B	04U	PR D70 091105	B. Aubert *et al.*	(BABAR Collab.)	REFID=50241
AUBERT,B	04V	PRL 93 181805	B. Aubert *et al.*	(BABAR Collab.)	REFID=50265
AUBERT,BE	04	PR D70 111102	B. Aubert *et al.*	(BABAR Collab.)	REFID=50371
AUBERT,BE	04A	PR D70 112006	B. Aubert *et al.*	(BABAR Collab.)	REFID=50377
AUBERT,BE	04B	PR D70 091106	B. Aubert *et al.*	(BABAR Collab.)	REFID=50416
CHAO	04	PR D69 111102	Y. Chao *et al.*	(BELLE Collab.)	REFID=50006
CHAO	04B	PRL 93 191802	Y. Chao *et al.*	(BELLE Collab.)	REFID=50272
CHISTOV	04	PRL 93 051803	R. Chistov *et al.*	(BELLE Collab.)	REFID=50002
DRUTSKOY	04	PRL 92 051801	A. Drutskoy *et al.*	(BELLE Collab.)	REFID=49717
GARMASH	04	PR D69 012001	A. Garmash *et al.*	(BELLE Collab.)	REFID=49642
LEE	04	PRL 93 211801	Y.-J. Lee *et al.*	(BELLE Collab.)	REFID=50276
MAJUMDER	04	PR D70 111103	G. Majumder *et al.*	(BELLE Collab.)	REFID=50372
NAKAO	04	PR D69 112001	M. Nakao *et al.*	(BELLE Collab.)	REFID=50010
POLUEKTOV	04	PR D70 072003	A. Poluektov *et al.*	(BELLE Collab.)	REFID=50223
SCHWANDA	04	PRL 93 131803	C. Schwanda *et al.*	(BELLE Collab.)	REFID=50086
WANG	04	PRL 92 131801	M.Z. Wang *et al.*	(BELLE Collab.)	REFID=49936
WANG	04A	PR D70 012001	C.H. Wang *et al.*	(BELLE Collab.)	REFID=50045
ZANG	04	PR D69 017101	S.L. Zang *et al.*	(BELLE Collab.)	REFID=49637
ABE	03B	PR D67 032003	K. Abe *et al.*	(BELLE Collab.)	REFID=49205
ABE	03D	PRL 90 131803	K. Abe *et al.*	(BELLE Collab.)	REFID=49220

ADAM	03	PR D67 032001	N.E. Adam *et al.*	(CLEO Collab.)	REFID=49204
ADAM	03B	PR D68 012004	N.E. Adam *et al.*	(CLEO Collab.)	REFID=49507
ATHAR	03	PR D68 072003	S.B. Athar *et al.*	(CLEO Collab.)	REFID=49666
AUBERT	03K	PRL 90 231801	B. Aubert *et al.*	(BABAR Collab.)	REFID=49439
AUBERT	03L	PRL 91 021801	B. Aubert *et al.*	(BABAR Collab.)	REFID=49493
AUBERT	03M	PRL 91 051801	B. Aubert *et al.*	(BABAR Collab.)	REFID=49513
AUBERT	03O	PRL 91 071801	B. Aubert *et al.*	(BABAR Collab.)	REFID=49515
AUBERT	03U	PRL 91 221802	B. Aubert *et al.*	(BABAR Collab.)	REFID=49648
AUBERT	03V	PRL 91 171802	B. Aubert *et al.*	(BABAR Collab.)	REFID=49663
AUBERT	03W	PRL 91 161801	B. Aubert *et al.*	(BABAR Collab.)	REFID=49664
AUBERT	03X	PR D68 092001	B. Aubert *et al.*	(BABAR Collab.)	REFID=49665
BORNHEIM	03	PR D68 052002	A. Bornheim *et al.*	(CLEO Collab.)	REFID=49546
CHEN	03B	PRL 91 201801	K.-F. Chen *et al.*	(BELLE Collab.)	REFID=49639
CHOI	03	PRL 91 262001	S.-K. Choi *et al.*	(BELLE Collab.)	REFID=49628
CSORNA	03	PR D67 112002	S.E. Csorna *et al.*	(CLEO Collab.)	REFID=49435
EDWARDS	03	PR D68 011102	K.W. Edwards *et al.*	(CLEO Collab.)	REFID=49504
FANG	03	PRL 90 071801	F. Fang *et al.*	(BELLE Collab.)	REFID=49206
HUANG	03	PRL 91 241802	H.-C. Huang *et al.*	(BELLE Collab.)	REFID=49621
ISHIKAWA	03	PRL 91 261601	A. Ishikawa *et al.*	(BELLE Collab.)	REFID=49641
KROKOVNY	03B	PRL 91 262002	P. Krokovny *et al.*	(BELLE Collab.)	REFID=49615
SWAIN	03	PR D68 051101	S.K. Swain *et al.*	(BELLE Collab.)	REFID=49545
UNNO	03	PR D68 011103	Y. Unno *et al.*	(BELLE Collab.)	REFID=49505
ZHANG	03B	PRL 91 221801	J. Zhang *et al.*	(BELLE Collab.)	REFID=49634
ABE	02	PRL 88 021801	K. Abe *et al.*	(BELLE Collab.)	REFID=48518
ABE	02B	PRL 88 031802	K. Abe *et al.*	(BELLE Collab.)	REFID=48520
ABE	02H	PRL 88 171801	K. Abe *et al.*	(BELLE Collab.)	REFID=48633
ABE	02K	PRL 88 181803	K. Abe *et al.*	(BELLE Collab.)	REFID=48690
ABE	02N	PL B538 11	K. Abe *et al.*	(BELLE Collab.)	REFID=48769
ABE	02O	PR D65 091103	K. Abe *et al.*	(BELLE Collab.)	REFID=48790
ABE	02W	PRL 89 151802	K. Abe *et al.*	(BELLE Collab.)	REFID=48980
ACOSTA	02C	PR D65 092009	D. Acosta *et al.*	(CDF Collab.)	REFID=48794
ACOSTA	02F	PR D66 052005	D. Acosta *et al.*	(CDF Collab.)	REFID=48998
AHMED	02B	PR D66 031101	S. Ahmed *et al.*	(CLEO Collab.)	REFID=48901
AUBERT	02	PR D65 032001	B. Aubert *et al.*	(BABAR Collab.)	REFID=48514
AUBERT	02C	PRL 88 101805	B. Aubert *et al.*	(BABAR Collab.)	REFID=48600
AUBERT	02E	PR D65 051101	B. Aubert *et al.*	(BABAR Collab.)	REFID=48636
AUBERT	02F	PR D65 091101	B. Aubert *et al.*	(BABAR Collab.)	REFID=48637
AUBERT	02L	PRL 88 241801	B. Aubert *et al.*	(BABAR Collab.)	REFID=48751
BRIERE	02	PRL 89 081803	R. Briere *et al.*	(CLEO Collab.)	REFID=48758
CASEY	02	PR D66 092002	B.C.K. Casey *et al.*	(BELLE Collab.)	REFID=49071
CHEN	02B	PL B546 196	K.-F. Chen *et al.*	(BELLE Collab.)	REFID=48992
DRUTSKOY	02	PL B542 171	A. Drutskoy *et al.*	(BELLE Collab.)	REFID=48780
DYTMAN	02	PR D66 091101	S.A. Dytman *et al.*	(CLEO Collab.)	REFID=49070
ECKHART	02	PRL 89 251801	E. Eckhart *et al.*	(CLEO Collab.)	REFID=49080
EDWARDS	02B	PR D65 111102	K.W. Edwards *et al.*	(CLEO Collab.)	REFID=48799
GABYSHEV	02	PR D66 091102	N. Gabyshev *et al.*	(BELLE Collab.)	REFID=49102
GARMASH	02	PR D65 092005	A. Garmash *et al.*	(BELLE Collab.)	REFID=48634
GODANG	02	PRL 88 021802	R. Godang *et al.*	(CLEO Collab.)	REFID=48519
GORDON	02	PL B542 183	A. Gordon *et al.*	(BELLE Collab.)	REFID=48781
LU	02	PRL 89 191801	R.-S. Lu *et al.*	(BELLE Collab.)	REFID=48994
MAHAPATRA	02	PRL 88 101803	R. Mahapatra *et al.*	(CLEO Collab.)	REFID=48599
NISHIDA	02	PRL 89 231801	S. Nishida *et al.*	(BELLE Collab.)	REFID=49078
ABE	01H	PRL 87 101801	K. Abe *et al.*	(BELLE Collab.)	REFID=48247
ABE	01I	PRL 87 111801	K. Abe *et al.*	(BELLE Collab.)	REFID=48248
ABE	01K	PR D64 071101	K. Abe *et al.*	(BELLE Collab.)	REFID=48367
ABE	01L	PRL 87 161601	K. Abe *et al.*	(BELLE Collab.)	REFID=48379
ABE	01M	PL B517 309	K. Abe *et al.*	(BELLE Collab.)	REFID=48382
ALEXANDER	01B	PR D64 092001	J.P. Alexander *et al.*	(CLEO Collab.)	REFID=48391
AMMAR	01B	PRL 87 271801	R. Ammar *et al.*	(CLEO Collab.)	REFID=48534
ANDERSON	01B	PRL 87 181803	S. Anderson *et al.*	(CLEO Collab.)	REFID=48389
AUBERT	01D	PRL 87 151801	B. Aubert *et al.*	(BABAR Collab.)	REFID=48377
AUBERT	01E	PRL 87 151802	B. Aubert *et al.*	(BABAR Collab.)	REFID=48378
AUBERT	01F	PRL 87 201803	B. Aubert *et al.*	(BABAR Collab.)	REFID=48432
AUBERT	01G	PRL 87 221802	B. Aubert *et al.*	(BABAR Collab.)	REFID=48434
BARATE	01E	EPJ C19 213	R. Barate *et al.*	(ALEPH Collab.)	REFID=48135
BRIERE	01	PRL 86 3718	R.A. Biere *et al.*	(CLEO Collab.)	REFID=48119
BROWDER	01	PRL 86 2950	T.E. Browder *et al.*	(CLEO Collab.)	REFID=48107
EDWARDS	01	PRL 86 30	K.W. Edwards *et al.*	(CLEO Collab.)	REFID=47903
GRITSAN	01	PR D64 077501	A. Gritsan *et al.*	(CLEO Collab.)	REFID=48373
RICHICHI	01	PR D63 031103	S.J. Richichi *et al.*	(CLEO Collab.)	REFID=48226
ABBIENDI	00B	PL B476 233	G. Abbiendi *et al.*	(OPAL Collab.)	REFID=47437
ABE	00C	PR D62 071101	K. Abe *et al.*	(SLD Collab.)	REFID=47762
AHMED	00B	PR D62 112003	S. Ahmed *et al.*	(CLEO Collab.)	REFID=47822
ANASTASSOV	00	PRL 84 1393	A. Anastassov *et al.*	(CLEO Collab.)	REFID=47574
BARATE	00R	PL B492 275	R. Barate *et al.*	(ALEPH Collab.)	REFID=47827
BEHRENS	00	PR D61 052001	B.H. Behrens *et al.*	(CLEO Collab.)	REFID=47558
BONVICINI	00	PRL 84 5940	G. Bonvicini *et al.*	(CLEO Collab.)	REFID=47650
CHEN	00	PRL 85 525	S. Chen *et al.*	(CLEO Collab.)	REFID=47669
COAN	00	PRL 84 5283	T.E. Coan *et al.*	(CLEO Collab.)	REFID=47633
CRONIN-HEN...	00	PRL 85 515	D. Cronin-Hennessy *et al.*	(CLEO Collab.)	REFID=47659
CSORNA	00	PR D61 111101	S.E. Csorna *et al.*	(CLEO Collab.)	REFID=47435
JESSOP	00	PRL 85 2881	C.P. Jessop *et al.*	(CLEO Collab.)	REFID=47771
RICHICHI	00	PRL 85 520	S.J. Richichi *et al.*	(CLEO Collab.)	REFID=47660
ABBIENDI	99J	EPJ C12 609	G. Abbiendi *et al.*	(OPAL Collab.)	REFID=46738
AFFOLDER	99B	PRL 83 3378	T. Affolder *et al.*	(CDF Collab.)	REFID=47213
BARTELT	99	PRL 82 3746	J. Bartelt *et al.*	(CLEO Collab.)	REFID=47004
COAN	99	PR D59 111101	T.E. Coan *et al.*	(CLEO Collab.)	REFID=47019
ABE	98B	PR D57 5382	F. Abe *et al.*	(CDF Collab.)	REFID=45880
ABE	98O	PR D58 072001	F. Abe *et al.*	(CDF Collab.)	REFID=46156
ABE	98Q	PR D58 092002	F. Abe *et al.*	(CDF Collab.)	REFID=46475
ACCIARRI	98S	PL B438 417	M. Acciarri *et al.*	(L3 Collab.)	REFID=46503
ANASTASSOV	98	PRL 80 4127	A. Anastassov *et al.*	(CLEO Collab.)	REFID=46015
ATHANAS	98	PRL 80 5493	M. Athanas *et al.*	(CLEO Collab.)	REFID=46113
BARATE	98Q	EPJ C4 387	R. Barate *et al.*	(ALEPH Collab.)	REFID=46146

BEHRENS	98	PRL 80 3710	B.H. Behrens *et al.*	(CLEO Collab.)	REFID=45936
BERGFELD	98	PRL 81 272	T. Bergfeld *et al.*	(CLEO Collab.)	REFID=46091
BRANDENB...	98	PRL 80 2762	G. Brandenbrug *et al.*	(CLEO Collab.)	REFID=45874
CAPRINI	98	NP B530 153	I. Caprini, L. Lellouch, M. Neubert	(BCIP, CERN)	REFID=52699
GODANG	98	PRL 80 3456	R. Godang *et al.*	(CLEO Collab.)	REFID=45935
ABE	97J	PRL 79 590	K. Abe *et al.*	(SLD Collab.)	REFID=45413
ACCIARRI	97F	PL B396 327	M. Acciarri *et al.*	(L3 Collab.)	REFID=45317
ARTUSO	97	PL B399 321	M. Artuso *et al.*	(CLEO Collab.)	REFID=45327
ATHANAS	97	PRL 79 2208	M. Athanas *et al.*	(CLEO Collab.)	REFID=45598
BROWDER	97	PR D56 11	T. Browder *et al.*	(CLEO Collab.)	REFID=45431
FU	97	PRL 79 3125	X. Fu *et al.*	(CLEO Collab.)	REFID=45625
JESSOP	97	PRL 79 4533	C.P. Jessop *et al.*	(CLEO Collab.)	REFID=45744
ABE	96B	PR D53 3496	F. Abe *et al.*	(CDF Collab.)	REFID=44688
ABE	96C	PRL 76 4462	F. Abe *et al.*	(CDF Collab.)	REFID=44700
ABE	96H	PRL 76 2015	F. Abe *et al.*	(CDF Collab.)	REFID=44798
ABE	96L	PRL 76 4675	F. Abe *et al.*	(CDF Collab.)	REFID=44807
ABE	96Q	PR D54 6596	F. Abe *et al.*	(CDF Collab.)	REFID=44974
ABE	96R	PRL 77 5176	F. Abe *et al.*	(CDF Collab.)	REFID=45159
ADAM	96D	ZPHY C72 207	W. Adam *et al.*	(DELPHI Collab.)	REFID=45276
ALEXANDER	96T	PRL 77 5000	J.P. Alexander *et al.*	(CLEO Collab.)	REFID=44972
ASNER	96	PR D53 1039	D.M. Asner *et al.*	(CLEO Collab.)	REFID=44734
BARISH	96B	PRL 76 1570	B.C. Barish *et al.*	(CLEO Collab.)	REFID=44693
BERGFELD	96B	PRL 77 4503	T. Bergfeld *et al.*	(CLEO Collab.)	REFID=44956
BISHAI	96	PL B369 186	M. Bishai *et al.*	(CLEO Collab.)	REFID=44832
BUSKULIC	96J	ZPHY C71 31	D. Buskulic *et al.*	(ALEPH Collab.)	REFID=44824
GIBAUT	96	PR D53 4734	D. Gibaut *et al.*	(CLEO Collab.)	REFID=44784
PDG	96	PR D54 1	R. M. Barnett *et al.*	(PDG Collab.)	REFID=44495
ABREU	95N	PL B357 255	P. Abreu *et al.*	(DELPHI Collab.)	REFID=44417
ABREU	95Q	ZPHY C68 13	P. Abreu *et al.*	(DELPHI Collab.)	REFID=44460
ADAM	95	ZPHY C68 363	W. Adam *et al.*	(DELPHI Collab.)	REFID=44465
AKERS	95T	ZPHY C67 379	R. Akers *et al.*	(OPAL Collab.)	REFID=44379
ALBRECHT	95D	PL B353 554	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=44352
ALEXANDER	95	PL B341 435	J. Alexander *et al.*	(CLEO Collab.)	REFID=44113
Also		PL B347 469 (errat.)	J. Alexander *et al.*	(CLEO Collab.)	REFID=44211
ARTUSO	95	PRL 75 785	M. Artuso *et al.*	(CLEO Collab.)	REFID=44347
BARISH	95	PR D51 1014	B.C. Barish *et al.*	(CLEO Collab.)	REFID=44139
BUSKULIC	95	PL B343 444	D. Buskulic *et al.*	(ALEPH Collab.)	REFID=44119
ABE	94D	PRL 72 3456	F. Abe *et al.*	(CDF Collab.)	REFID=43761
ALAM	94	PR D50 43	M.S. Alam *et al.*	(CLEO Collab.)	REFID=43738
ALBRECHT	94D	PL B335 526	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=43962
ATHANAS	94	PRL 73 3503	M. Athanas *et al.*	(CLEO Collab.)	REFID=44064
Also		PRL 74 3090 (errat.)	M. Athanas *et al.*	(CLEO Collab.)	REFID=44196
PDG	94	PR D50 1173	L. Montanet *et al.*	(CERN, LBL, BOST+)	REFID=43653
STONE	94	HEPSY 93-11	S. Stone		REFID=43737
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ABREU	93D	ZPHY C57 181	P. Abreu *et al.*	(DELPHI Collab.)	REFID=43267
ABREU	93G	PL B312 253	P. Abreu *et al.*	(DELPHI Collab.)	REFID=43443
ACTON	93C	PL B307 247	P.D. Acton *et al.*	(OPAL Collab.)	REFID=43352
ALBRECHT	93E	ZPHY C60 11	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=43514
ALEXANDER	93B	PL B319 365	J. Alexander *et al.*	(CLEO Collab.)	REFID=43725
AMMAR	93	PRL 71 674	R. Ammar *et al.*	(CLEO Collab.)	REFID=43452
BEAN	93B	PRL 70 2681	A. Bean *et al.*	(CLEO Collab.)	REFID=43356
BUSKULIC	93D	PL B307 194	D. Buskulic *et al.*	(ALEPH Collab.)	REFID=43349
Also		PL B325 537 (errat.)	D. Buskulic *et al.*	(ALEPH Collab.)	REFID=43945
SANGHERA	93	PR D47 791	S. Sanghera *et al.*	(CLEO Collab.)	REFID=43098
ALBRECHT	92C	PL B275 195	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=41928
ALBRECHT	92E	PL B277 209	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=41985
ALBRECHT	92G	ZPHY C54 1	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=42037
BORTOLETTO	92	PR D45 21	D. Bortoletto *et al.*	(CLEO Collab.)	REFID=41920
BUSKULIC	92G	PL B295 396	D. Buskulic *et al.*	(ALEPH Collab.)	REFID=43142
ALBRECHT	91B	PL B254 288	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=41451
ALBRECHT	91C	PL B255 297	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=41454
ALBRECHT	91E	PL B262 148	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=41549
BERKELMAN	91	ARNPS 41 1	K. Berkelman, S. Stone	(CORN, SYRA)	REFID=41929
"Decays of *B* Mesons"					
FULTON	91	PR D43 651	R. Fulton *et al.*	(CLEO Collab.)	REFID=41391
ALBRECHT	90B	PL B241 278	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=41216
ALBRECHT	90J	ZPHY C48 543	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=41437
ANTREASYAN	90B	ZPHY C48 553	D. Antreasyan *et al.*	(Crystal Ball Collab.)	REFID=41438
BORTOLETTO	90	PRL 64 2117	D. Bortoletto *et al.*	(CLEO Collab.)	REFID=41178
Also		PR D45 21	D. Bortoletto *et al.*	(CLEO Collab.)	REFID=41920
WEIR	90B	PR D41 1384	A.J. Weir *et al.*	(Mark II Collab.)	REFID=41242
ALBRECHT	89G	PL B229 304	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=40942
AVERY	89B	PL B223 470	P. Avery *et al.*	(CLEO Collab.)	REFID=40820
BEBEK	89	PRL 62 8	C. Bebek *et al.*	(CLEO Collab.)	REFID=40626
BORTOLETTO	89	PRL 62 2436	D. Bortoletto *et al.*	(CLEO Collab.)	REFID=40787
ALBRECHT	88F	PL B209 119	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=40649
ALBRECHT	88K	PL B215 424	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=40662
ALBRECHT	87C	PL B185 218	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=40323
ALBRECHT	87D	PL B199 451	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=40325
AVERY	87	PL B183 429	P. Avery *et al.*	(CLEO Collab.)	REFID=40387
BEBEK	87	PR D36 1289	C. Bebek *et al.*	(CLEO Collab.)	REFID=40270
ALAM	86	PR D34 3279	M.S. Alam *et al.*	(CLEO Collab.)	REFID=40324
PDG	86	PL 170B 1	M. Aguilar-Benitez *et al.*	(CERN, CIT+)	REFID=40122
GILES	84	PR D30 2279	R. Giles *et al.*	(CLEO Collab.)	REFID=11570