NODE=M053

$\psi(3770)$

$I^G(J^{PC}) = 0^-(1^{--})$

$\psi(3770)$ MASS (MeV)

NODE=M053M

OUR FIT includes measurements of $m_{\psi(2S)}$, $m_{\psi(3770)}$, and $m_{\psi(3770)} - m_{\psi(2S)}$.

NODE=M053M

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
3773.7±0.7 OUR FIT Error includes scale factor of 2.3.					
3778.1±0.7 OUR AVERAGE					
3778.1±0.7±0.6		[1] AAIJ	19M	LHCB	$pp \to D\overline{D} +$ anything
$3779.2^{+1.8}_{-1.7}{}^{+0.6}_{-0.8}$		[2] ANASHIN	12A	KEDR	$e^+e^- \to D\overline{D}$
3775.5±2.4±0.5	57	AUBERT	08B	BABR	$B \to D\overline{D}K$
3776 ±5 ±4	68	BRODZICKA	08	BELL	$B^+ \to D^0\overline{D}{}^0K^+$
3778.8±1.9±0.9		AUBERT	07BE	BABR	$e^+e^- \to D\overline{D}\gamma$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
3778.8±0.3		[3] HANHART	24	RVUE	K-matrix formalism
3779.8±0.6		[4] SHAMOV	17	RVUE	$e^+e^- \to D\overline{D}$, hadrons
3772.0±1.9		[5,6] ABLIKIM	08D	BES2	$e^+e^- \to$ hadrons
3778.4±3.0±1.3	34	CHISTOV	04	BELL	Sup. by BRODZICKA 08

[1] Measured in prompt hadroproduction. NODE=M053M;LINKAGE=B

[2] Taking into account interference between the resonant and non-resonant $D\overline{D}$ production. NODE=M053M;LINKAGE=AN

[3] Real part of pole location extracted using K-matrix formalism that includes two resonance poles, $\psi(2S)$ and $\psi(3770)$. NODE=M053M;LINKAGE=C

[4] From the joint analysis of the data on the $D\overline{D}$ and inclusive hadronic cross sections in the $\psi(3770)$ region from BaBar, Belle, BES-II, CLEO and KEDR. NODE=M053M;LINKAGE=A

[5] Reanalysis of data presented in BAI 02C. From a global fit over the center-of-mass energy region 3.7–5.0 GeV covering the $\psi(3770)$, $\psi(4040)$, $\psi(4160)$, and $\psi(4415)$ resonances. Phase angle fixed in the fit to $\delta = 0^\circ$. NODE=M053M;LINKAGE=AB

[6] Interference between the resonant and non-resonant $D\overline{D}$ production not taken into account. NODE=M053M;LINKAGE=NI

$m_{\psi(3770)} - m_{\psi(2S)}$

NODE=M053DM

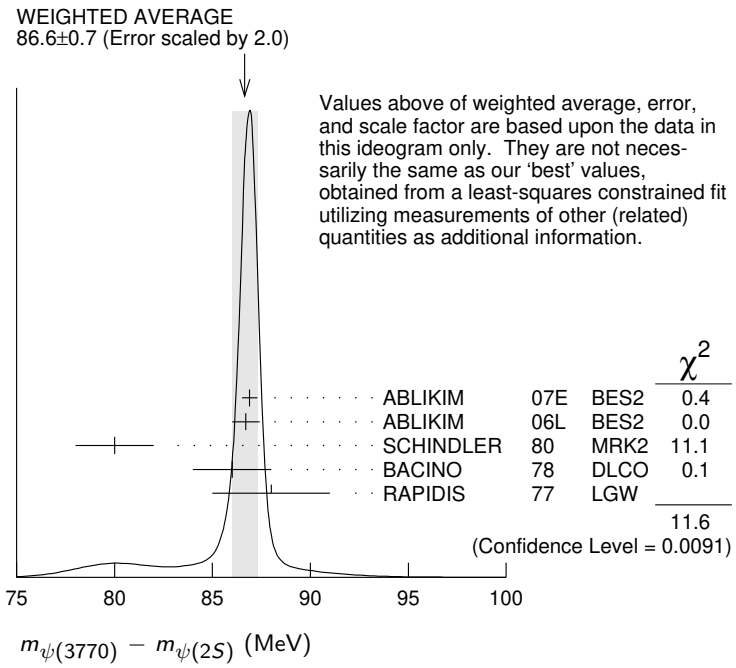
OUR FIT includes measurements of $m_{\psi(2S)}$, $m_{\psi(3770)}$, and $m_{\psi(3770)} - m_{\psi(2S)}$.

NODE=M053DM

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
87.6±0.7 OUR FIT Error includes scale factor of 2.3.				
86.6±0.7 OUR AVERAGE Error includes scale factor of 2.0. See the ideogram below.				
86.9±0.4	[1] ABLIKIM	07E	BES2	$e^+e^- \to$ hadrons
86.7±0.7	ABLIKIM	06L	BES2	$e^+e^- \to$ hadrons
80 ±2	SCHINDLER	80	MRK2	e^+e^-
86 ±2	[2] BACINO	78	DLCO	e^+e^-
88 ±3	RAPIDIS	77	LGW	e^+e^-

[1] BES-II $\psi(2S)$ mass subtracted (see ABLIKIM 06L). NODE=M053DM;LINKAGE=AK

[2] SPEAR $\psi(2S)$ mass subtracted (see SCHINDLER 80). NODE=M053DM;LINKAGE=S



ψ(3770) WIDTH

NODE=M053W

NODE=M053W

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
27.2± 1.0 OUR FIT					
27.5± 0.9 OUR AVERAGE					
$24.9^{+\ 4.6+0.5}_{-\ 4.0-1.1}$		[1] ANASHIN	12A	KEDR	$e^+e^- \to D\overline{D}$
30.4± 8.5		[2,3] ABLIKIM	08D	BES2	$e^+e^- \to$ hadrons
27 ±10 ±5	68	BRODZICKA	08	BELL	$B^+ \to D^0\overline{D}^0K^+$
28.5± 1.2±0.2		[3] ABLIKIM	07E	BES2	$e^+e^- \to$ hadrons
23.5± 3.7±0.9		AUBERT	07BE	BABR	$e^+e^- \to D\overline{D}\gamma$
26.9± 2.4±0.3		[3] ABLIKIM	06L	BES2	$e^+e^- \to$ hadrons
24 ± 5		[3] SCHINDLER	80	MRK2	e^+e^-
24 ± 5		[3] BACINO	78	DLCO	e^+e^-
28 ± 5		[3] RAPIDIS	77	LGW	e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
25.0± 0.5		[4] HANHART	24	RVUE	K-matrix formalism
25.8± 1.3		[5] SHAMOV	17	RVUE	$e^+e^- \to D\overline{D}$, hadrons

[1] Taking into account interference between the resonant and non-resonant $D\overline{D}$ production. NODE=M053W;LINKAGE=AN

[2] Reanalysis of data presented in BAI 02C. From a global fit over the center-of-mass energy region 3.7–5.0 GeV covering the ψ(3770), ψ(4040), ψ(4160), and ψ(4415) resonances. Phase angle fixed in the fit to $\delta = 0^\circ$. NODE=M053W;LINKAGE=AB

[3] Interference between the resonant and non-resonant $D\overline{D}$ production not taken into account. NODE=M053W;LINKAGE=NI

[4] $-2\times$ imaginary part of pole location extracted using K-matrix formalism that includes two resonance poles, $\psi(2S)$ and ψ(3770). NODE=M053W;LINKAGE=B

[5] From the joint analysis of the data on the $D\overline{D}$ and inclusive hadronic cross sections in the ψ(3770) region from BaBar, Belle, BES-II, CLEO and KEDR. NODE=M053W;LINKAGE=A

ψ(3770) DECAY MODES

NODE=M053220;NODE=M053

	Mode	Fraction (Γ_i/Γ)	Scale factor/ Confidence level	
Γ_1	$D\overline{D}$	$(93\ ^{+8}_{-9})\%$	S=2.0	DESIG=2
Γ_2	$D^0\overline{D}^0$	$(52\ ^{+4}_{-5})\%$	S=2.0	DESIG=5
Γ_3	D^+D^-	$(41\ \pm4)\%$	S=2.0	DESIG=6
Γ_4	$J/\psi X$	$(5.0\ \pm2.2)\times10^{-3}$		DESIG=235
Γ_5	$J/\psi\pi^+\pi^-$	$(1.93\pm0.28)\times10^{-3}$		DESIG=4
Γ_6	$J/\psi\pi^0\pi^0$	$(8.0\ \pm3.0)\times10^{-4}$		DESIG=46
Γ_7	$J/\psi\eta$	$(8.7\ \pm1.2)\times10^{-4}$		DESIG=47
Γ_8	$J/\psi\pi^0$	$< 2.8 \times10^{-4}$	CL=90%	DESIG=48
Γ_9	e^+e^-	$(9.6\ \pm0.7)\times10^{-6}$	S=1.3	DESIG=1

Decays to light hadrons

NODE=M053;CLUMP=H

Γ_{10}	$b_1(1235)\pi$	$<$	1.4	$\times 10^{-5}$	CL=90%	DESIG=20
Γ_{11}	$\phi\eta'$	$<$	2.3	$\times 10^{-5}$	CL=90%	DESIG=17
Γ_{12}	$\omega\eta'$	$<$	4	$\times 10^{-4}$	CL=90%	DESIG=16
Γ_{13}	$\rho^0\eta'$	$<$	6	$\times 10^{-4}$	CL=90%	DESIG=15
Γ_{14}	$\phi\eta$	(	3.1 $\pm$0.7)	$\times 10^{-4}$		DESIG=8
Γ_{15}	$\omega\eta$	$<$	1.4	$\times 10^{-5}$	CL=90%	DESIG=14
Γ_{16}	$\rho^0\eta$	$<$	5	$\times 10^{-4}$	CL=90%	DESIG=13
Γ_{17}	$\phi\pi^0$	$<$	3	$\times 10^{-5}$	CL=90%	DESIG=12
Γ_{18}	$\omega\pi^0$	$<$	6	$\times 10^{-4}$	CL=90%	DESIG=11
Γ_{19}	$\pi^+\pi^-\pi^0$	$<$	5	$\times 10^{-6}$	CL=90%	DESIG=9
Γ_{20}	$\rho\pi$	$<$	5	$\times 10^{-6}$	CL=90%	DESIG=10
Γ_{21}	K^+K^-	not seen				DESIG=234;OUR EST;$\rightarrow$ UNCHECKED $\leftarrow$
Γ_{22}	$K^*(892)^+K^-$ + c.c.	$<$	1.4	$\times 10^{-5}$	CL=90%	DESIG=19
Γ_{23}	$K^*(892)^0\overline{K}^0$ + c.c.	$<$	1.2	$\times 10^{-3}$	CL=90%	DESIG=18
Γ_{24}	$K^0_SK^0_L$	(	2.6 $^{+1.4}_{-1.6}$)	$\times 10^{-5}$		DESIG=3
Γ_{25}	$2(\pi^+\pi^-)$	$<$	1.12	$\times 10^{-3}$	CL=90%	DESIG=21
Γ_{26}	$2(\pi^+\pi^-)\pi^0$	$<$	1.06	$\times 10^{-3}$	CL=90%	DESIG=22
Γ_{27}	$2(\pi^+\pi^-\pi^0)$	$<$	5.85	%	CL=90%	DESIG=208
Γ_{28}	$\omega\pi^+\pi^-$	$<$	6.0	$\times 10^{-4}$	CL=90%	DESIG=24
Γ_{29}	$3(\pi^+\pi^-)$	$<$	9.1	$\times 10^{-3}$	CL=90%	DESIG=52
Γ_{30}	$3(\pi^+\pi^-)\pi^0$	$<$	1.37	%	CL=90%	DESIG=55
Γ_{31}	$3(\pi^+\pi^-)2\pi^0$	$<$	11.74	%	CL=90%	DESIG=210
Γ_{32}	$\eta\pi^+\pi^-$	$<$	1.24	$\times 10^{-3}$	CL=90%	DESIG=23
Γ_{33}	$\pi^+\pi^-2\pi^0$	$<$	8.9	$\times 10^{-3}$	CL=90%	DESIG=206
Γ_{34}	$\rho^0\pi^+\pi^-$	$<$	6.9	$\times 10^{-3}$	CL=90%	DESIG=64
Γ_{35}	$\eta 3\pi$	$<$	1.34	$\times 10^{-3}$	CL=90%	DESIG=25
Γ_{36}	$\eta 2(\pi^+\pi^-)$	$<$	2.43	%	CL=90%	DESIG=53
Γ_{37}	$\eta\rho^0\pi^+\pi^-$	$<$	1.45	%	CL=90%	DESIG=221
Γ_{38}	$\eta' 3\pi$	$<$	2.44	$\times 10^{-3}$	CL=90%	DESIG=26
Γ_{39}	$K^+K^-\pi^+\pi^-$	$<$	9.0	$\times 10^{-4}$	CL=90%	DESIG=27
Γ_{40}	$\phi\pi^+\pi^-$	$<$	4.1	$\times 10^{-4}$	CL=90%	DESIG=28
Γ_{41}	$K^+K^-2\pi^0$	$<$	4.2	$\times 10^{-3}$	CL=90%	DESIG=207
Γ_{42}	$4(\pi^+\pi^-)$	$<$	1.67	%	CL=90%	DESIG=62
Γ_{43}	$4(\pi^+\pi^-)\pi^0$	$<$	3.06	%	CL=90%	DESIG=63
Γ_{44}	$\phi f_0(980)$	$<$	4.5	$\times 10^{-4}$	CL=90%	DESIG=29
Γ_{45}	$K^+K^-\pi^+\pi^-\pi^0$	$<$	2.36	$\times 10^{-3}$	CL=90%	DESIG=30
Γ_{46}	$K^+K^-\rho^0\pi^0$	$<$	8	$\times 10^{-4}$	CL=90%	DESIG=67
Γ_{47}	$K^+K^-\rho^+\pi^-$	$<$	1.46	%	CL=90%	DESIG=68
Γ_{48}	ωK^+K^-	$<$	3.4	$\times 10^{-4}$	CL=90%	DESIG=32
Γ_{49}	$\phi\pi^+\pi^-\pi^0$	$<$	3.8	$\times 10^{-3}$	CL=90%	DESIG=69
Γ_{50}	$K^{*0}K^-\pi^+\pi^0$ + c.c.	$<$	1.62	%	CL=90%	DESIG=70
Γ_{51}	$K^{*+}K^-\pi^+\pi^-$ + c.c.	$<$	3.23	%	CL=90%	DESIG=71
Γ_{52}	$K^+K^-\pi^+\pi^-2\pi^0$	$<$	2.67	%	CL=90%	DESIG=209
Γ_{53}	$K^+K^-2(\pi^+\pi^-)$	$<$	1.03	%	CL=90%	DESIG=57
Γ_{54}	$K^+K^-2(\pi^+\pi^-)\pi^0$	$<$	3.60	%	CL=90%	DESIG=58
Γ_{55}	ηK^+K^-	$<$	4.1	$\times 10^{-4}$	CL=90%	DESIG=31
Γ_{56}	$\eta K^+K^-\pi^+\pi^-$	$<$	1.24	%	CL=90%	DESIG=222
Γ_{57}	$\rho^0K^+K^-$	$<$	5.0	$\times 10^{-3}$	CL=90%	DESIG=65
Γ_{58}	$2(K^+K^-)$	$<$	6.0	$\times 10^{-4}$	CL=90%	DESIG=33
Γ_{59}	ϕK^+K^-	$<$	7.5	$\times 10^{-4}$	CL=90%	DESIG=34
Γ_{60}	$2(K^+K^-)\pi^0$	$<$	2.9	$\times 10^{-4}$	CL=90%	DESIG=35
Γ_{61}	$2(K^+K^-)\pi^+\pi^-$	$<$	3.2	$\times 10^{-3}$	CL=90%	DESIG=59
Γ_{62}	$K^0_SK^-\pi^+$	$<$	3.2	$\times 10^{-3}$	CL=90%	DESIG=200
Γ_{63}	$K^0_SK^-\pi^+\pi^0$	$<$	1.33	%	CL=90%	DESIG=201
Γ_{64}	$K^0_SK^-\rho^+$	$<$	6.6	$\times 10^{-3}$	CL=90%	DESIG=214
Γ_{65}	$K^0_SK^-2\pi^+\pi^-$	$<$	8.7	$\times 10^{-3}$	CL=90%	DESIG=202
Γ_{66}	$K^0_SK^-\pi^+\rho^0$	$<$	1.6	%	CL=90%	DESIG=215

Γ_{67}	$K^0_S K^- \pi^+ \eta$	$<$	1.3	%	CL=90%	DESIG=216
Γ_{68}	$K^0_S K^- 2\pi^+ \pi^- \pi^0$	$<$	4.18	%	CL=90%	DESIG=203
Γ_{69}	$K^0_S K^- 2\pi^+ \pi^- \eta$	$<$	4.8	%	CL=90%	DESIG=217
Γ_{70}	$K^0_S K^- \pi^+ 2(\pi^+ \pi^-)$	$<$	1.22	%	CL=90%	DESIG=204
Γ_{71}	$K^0_S K^- \pi^+ 2\pi^0$	$<$	2.65	%	CL=90%	DESIG=205
Γ_{72}	$K^0_S K^- K^+ K^- \pi^+$	$<$	4.9	$\times 10^{-3}$	CL=90%	DESIG=218
Γ_{73}	$K^0_S K^- K^+ K^- \pi^+ \pi^0$	$<$	3.0	%	CL=90%	DESIG=219
Γ_{74}	$K^0_S K^- K^+ K^- \pi^+ \eta$	$<$	2.2	%	CL=90%	DESIG=220
Γ_{75}	$K^{*0} K^- \pi^+ +$ c.c.	$<$	9.7	$\times 10^{-3}$	CL=90%	DESIG=60
Γ_{76}	$p\overline{p}$		not seen			DESIG=233;OUR EST;→ UNCHECKED ←
Γ_{77}	$p\overline{p}\pi^0$	$<$	4	$\times 10^{-5}$	CL=90%	DESIG=54
Γ_{78}	$p\overline{p}\pi^+ \pi^-$	$<$	5.8	$\times 10^{-4}$	CL=90%	DESIG=36
Γ_{79}	$\Lambda\overline{\Lambda}$	$<$	1.2	$\times 10^{-4}$	CL=90%	DESIG=42
Γ_{80}	$p\overline{p}\pi^+ \pi^- \pi^0$	$<$	1.85	$\times 10^{-3}$	CL=90%	DESIG=37
Γ_{81}	$\omega p\overline{p}$	$<$	2.9	$\times 10^{-4}$	CL=90%	DESIG=39
Γ_{82}	$\Lambda\overline{\Lambda}\pi^0$	$<$	7	$\times 10^{-5}$	CL=90%	DESIG=72
Γ_{83}	$p\overline{p}2(\pi^+ \pi^-)$	$<$	2.6	$\times 10^{-3}$	CL=90%	DESIG=61
Γ_{84}	$\eta p\overline{p}$	$<$	5.4	$\times 10^{-4}$	CL=90%	DESIG=38
Γ_{85}	$\eta p\overline{p}\pi^+ \pi^-$	$<$	3.3	$\times 10^{-3}$	CL=90%	DESIG=223
Γ_{86}	$\rho^0 p\overline{p}$	$<$	1.7	$\times 10^{-3}$	CL=90%	DESIG=66
Γ_{87}	$p\overline{p}K^+ K^-$	$<$	3.2	$\times 10^{-4}$	CL=90%	DESIG=40
Γ_{88}	$\eta p\overline{p}K^+ K^-$	$<$	6.9	$\times 10^{-3}$	CL=90%	DESIG=224
Γ_{89}	$\pi^0 p\overline{p}K^+ K^-$	$<$	1.2	$\times 10^{-3}$	CL=90%	DESIG=225
Γ_{90}	$\phi p\overline{p}$	$<$	1.3	$\times 10^{-4}$	CL=90%	DESIG=41
Γ_{91}	$\Lambda\overline{\Lambda}\pi^+ \pi^-$	$<$	2.5	$\times 10^{-4}$	CL=90%	DESIG=43
Γ_{92}	$\Lambda\overline{p}K^+$	$<$	2.8	$\times 10^{-4}$	CL=90%	DESIG=44
Γ_{93}	$\Lambda\overline{p}K^+ \pi^+ \pi^-$	$<$	6.3	$\times 10^{-4}$	CL=90%	DESIG=45
Γ_{94}	$\Lambda\overline{\Lambda}\eta$	$<$	1.9	$\times 10^{-4}$	CL=90%	DESIG=226
Γ_{95}	$\Sigma^+ \overline{\Sigma}^-$	$<$	1.0	$\times 10^{-4}$	CL=90%	DESIG=227
Γ_{96}	$\Sigma^0 \overline{\Sigma}^0$	$<$	4	$\times 10^{-5}$	CL=90%	DESIG=228
Γ_{97}	$\Xi^0 \overline{\Xi}^0$	$<$	3.4	$\times 10^{-4}$	CL=90%	DESIG=230
Γ_{98}	$\Xi^- \overline{\Xi}^+$	(	1.4 $\pm$0.4)	$\times 10^{-4}$		DESIG=236
Γ_{99}	$\Lambda\overline{\Xi}^+ K^- +$ c.c.	$<$	1.0	$\times 10^{-4}$	CL=90%	DESIG=237
Γ_{100}	$\Sigma^0 \overline{\Xi}^+ K^- +$ c.c.	$<$	3.4	$\times 10^{-4}$	CL=90%	DESIG=238

Radiative decays

NODE=M053;CLUMP=R

Γ_{101}	$\gamma\chi_{c2}$	$<$	6.4	$\times 10^{-4}$	CL=90%	DESIG=51
Γ_{102}	$\gamma\chi_{c1}$	(	2.49$\pm$0.23)	$\times 10^{-3}$		DESIG=50
Γ_{103}	$\gamma\chi_{c0}$	(	6.9 $\pm$0.6)	$\times 10^{-3}$		DESIG=49
Γ_{104}	$\gamma\eta_c$	$<$	7	$\times 10^{-4}$	CL=90%	DESIG=231
Γ_{105}	$\gamma\eta_c(2S)$	$<$	9	$\times 10^{-4}$	CL=90%	DESIG=232
Γ_{106}	$\gamma\eta'$	$<$	1.8	$\times 10^{-4}$	CL=90%	DESIG=213
Γ_{107}	$\gamma\eta$	$<$	1.5	$\times 10^{-4}$	CL=90%	DESIG=212
Γ_{108}	$\gamma\pi^0$	$<$	2	$\times 10^{-4}$	CL=90%	DESIG=211

FIT INFORMATION

An overall fit to the total width, a partial width, and 3 branching ratios uses 23 measurements to determine 4 parameters. The overall fit has a $\chi^2 = 20.1$ for 19 degrees of freedom.

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

x_3	99		
x_9	0	0	
Γ	0	0	−44
	x_2	x_3	x_9

	Mode	Rate (MeV)	Scale factor	
Γ_2	$D^0 \overline{D}^0$	14.0 $\pm$1.4	1.8	DESIG=5
Γ_3	$D^+ D^-$	11.2 $\pm$1.1	1.7	DESIG=6
Γ_9	$e^+ e^-$	(2.62$\pm$0.18) $\times 10^{-4}$	1.4	DESIG=1

$\psi(3770)$ PARTIAL WIDTHS

NODE=M053225

$\Gamma(e^+e^-)$ Γ_9

NODE=M053W1
NODE=M053W1

VALUE (keV)	EVTS	DOCUMENT ID		TECN	COMMENT
0.262±0.018 OUR FIT Error includes scale factor of 1.4.					
0.256±0.016 OUR AVERAGE Error includes scale factor of 1.2.					
$0.154^{+0.079}_{-0.058}{}^{+0.021}_{-0.027}$		[1,2] ANASHIN	12A	KEDR	$e^+e^- \to D\overline{D}$
0.22 ±0.05		[3,4] ABLIKIM	08D	BES2	$e^+e^- \to$ hadrons
0.277±0.011±0.013		[4] ABLIKIM	07E	BES2	$e^+e^- \to$ hadrons
$0.203\pm0.003^{+0.041}_{-0.027}$	1.4M	[4,5] BESSON	06	CLEO	$e^+e^- \to$ hadrons
0.276±0.050		[4] SCHINDLER	80	MRK2	e^+e^-
0.18 ±0.06		[4] BACINO	78	DLCO	e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.196±0.018		[6] SHAMOV	17	RVUE	$e^+e^- \to D\overline{D}$, hadrons
$0.414^{+0.072}_{-0.080}{}^{+0.093}_{-0.028}$		[2,7] ANASHIN	12A	KEDR	$e^+e^- \to D\overline{D}$
0.37 ±0.09		[8] RAPIDIS	77	LGW	e^+e^-

OCCUR=2
OCCUR=2

[1] Solution I of the two solutions. NODE=M053W1;LINKAGE=A1
[2] Taking into account interference between the resonant and non-resonant $D\overline{D}$ production. NODE=M053W1;LINKAGE=AN
[3] Reanalysis of data presented in BAI 02C. From a global fit over the center-of-mass energy region 3.7–5.0 GeV covering the $\psi(3770)$, $\psi(4040)$, $\psi(4160)$, and $\psi(4415)$ resonances. Phase angle fixed in the fit to $\delta = 0^\circ$. NODE=M053W1;LINKAGE=AB
[4] Interference between the resonant and non-resonant $D\overline{D}$ production not taken into account. NODE=M053W1;LINKAGE=NI
[5] BESSON 06 (as corrected in BESSON 10) measure $\sigma(e^+e^- \to \psi(3770) \to$ hadrons$) = 6.36 \pm 0.08^{+0.41}_{-0.30}$ nb at $\sqrt{s} = 3773 \pm 1$ MeV, and obtain Γ_{ee} from the Born-level cross section calculated using $\psi(3770)$ mass and width from our 2004 edition, PDG 04. NODE=M053W1;LINKAGE=BE
[6] From the joint analysis of the data on the $D\overline{D}$ and inclusive hadronic cross sections in the $\psi(3770)$ region from BaBar, Belle, BES-II, CLEO and KEDR. NODE=M053W1;LINKAGE=B
[7] Solution II of the two solutions. NODE=M053W1;LINKAGE=A2
[8] See also $\Gamma(e^+e^-)/\Gamma_{\text{total}}$ below. NODE=M053W1;LINKAGE=R

$\psi(3770)$ Γ(i) × $\Gamma(e^+e^-)/\Gamma$(total)

NODE=M053235

$\Gamma(\Sigma^+\overline{\Sigma}^-) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ $\Gamma_{95}\Gamma_9/\Gamma$

NODE=M053P03
NODE=M053P03

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
<101.5 × 10⁻³	90	[1] ABLIKIM	24AH	BES3	$e^+e^- \to \Sigma^+\overline{\Sigma}^-$

[1] Interference effect between resonance and continuum amplitudes is considered. Two solutions from the fit. NODE=M053P03;LINKAGE=A

$\Gamma(\Xi^0\overline{\Xi}^0) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ $\Gamma_{97}\Gamma_9/\Gamma$

NODE=M053P06
NODE=M053P06

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
<89.0 × 10⁻³	90	[1] ABLIKIM	24CD	BES3	$e^+e^- \to \psi(3770)$

[1] From a fit to $e^+e^- \to \Xi^0\overline{\Xi}^0$ cross sections. NODE=M053P06;LINKAGE=A

$\Gamma(\Xi^-\overline{\Xi}^+) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ $\Gamma_{98}\Gamma_9/\Gamma$

NODE=M053P01
NODE=M053P01

VALUE (eV)	DOCUMENT ID		TECN	COMMENT
(3.55±0.92) × 10⁻²	[1] ABLIKIM	23BK	BES3	$e^+e^- \to \psi(3770)$

[1] From a fit to $e^+e^- \to \Xi^-\overline{\Xi}^+$ cross sections. Signal significance is 4.5σ. NODE=M053P01;LINKAGE=A

$\Gamma(\Lambda\overline{\Xi}^+K^- + \text{c.c.}) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ $\Gamma_{99}\Gamma_9/\Gamma$

NODE=M053P04
NODE=M053P04

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
<25.0 × 10⁻³	90	[1] ABLIKIM	24AL	BES3	$e^+e^- \to \Lambda\overline{\Xi}^+K^-$ + c.c.

[1] A fit to the Born cross section of $e^+e^- \to \Lambda\overline{\Xi}^+K^-$ + c.c. including interference with the continuum. Two solutions from the fit. NODE=M053P04;LINKAGE=A

$\Gamma(\Sigma^0\overline{\Xi}^+K^- + \text{c.c.}) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ $\Gamma_{100}\Gamma_9/\Gamma$

NODE=M053P05
NODE=M053P05

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
<89.5 × 10⁻³	90	[1] ABLIKIM	24AL	BES3	$e^+e^- \to \Sigma^0\overline{\Xi}^+K^-$ + c.c.

[1] A fit to the Born cross section of $e^+e^- \to \Sigma^0\overline{\Xi}^+K^-$ + c.c. including interference with the continuum. Two solutions from the fit. NODE=M053P05;LINKAGE=A

$\psi(3770)$ BRANCHING RATIOS

NODE=M053230

$\Gamma(D\overline{D})/\Gamma_{total}$ $\Gamma_1/\Gamma = (\Gamma_2+\Gamma_3)/\Gamma$

NODE=M053R1
NODE=M053R1

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
$0.93\ ^{+0.08}_{-0.09}$ OUR FIT Error includes scale factor of 2.0.					
$0.93\ ^{+0.08}_{-0.09}$ OUR AVERAGE Error includes scale factor of 2.1.					
$0.849 \pm 0.056 \pm 0.018$		[1] ABLIKIM	08B	BES2	$e^+e^- \to$ non-$D\overline{D}$
$1.033 \pm 0.014\ ^{+0.048}_{-0.066}$	1.427M	[2] BESSON	06	CLEO	$e^+e^- \to$ hadrons
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.836 ± 0.049		[3] SHAMOV	17	RVUE	$e^+e^- \to D\overline{D}$, hadrons
$0.866 \pm 0.050 \pm 0.036$		[4,5] ABLIKIM	07K	BES2	$e^+e^- \to$ non-$D\overline{D}$
$0.836 \pm 0.073 \pm 0.042$		[5] ABLIKIM	06L	BES2	$e^+e^- \to D\overline{D}$
$0.855 \pm 0.017 \pm 0.058$		[5,6] ABLIKIM	06N	BES2	$e^+e^- \to D\overline{D}$

[1] Neglecting interference. NODE=M053R1;LINKAGE=AI
[2] Obtained by comparing a measurement of the total cross section (corrected in BESSON 10) with that of $D\overline{D}$ reported by CLEO in DOBBS 07. NODE=M053R1;LINKAGE=BE
[3] From the joint analysis of the data on the $D\overline{D}$ and inclusive hadronic cross sections in the $\psi(3770)$ region from BaBar, Belle, BES-II, CLEO and KEDR. NODE=M053R1;LINKAGE=A
[4] Using $\sigma^{obs} = 7.07 \pm 0.58$ nb and neglecting interference. NODE=M053R1;LINKAGE=AL
[5] Not independent of ABLIKIM 08B. NODE=M053R1;LINKAGE=SU
[6] From a measurement of $\sigma(e^+e^- \to D\overline{D})$ at $\sqrt{s} = 3773$ MeV, using the $\psi(3770)$ resonance parameters measured by ABLIKIM 06L. NODE=M053R1;LINKAGE=AB

$\Gamma(D^0\overline{D}^0)/\Gamma_{total}$ Γ_2/Γ

NODE=M053R46
NODE=M053R46

VALUE	DOCUMENT ID		TECN	COMMENT
$0.52\ ^{+0.04}_{-0.05}$ OUR FIT Error includes scale factor of 2.0.				
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.467 \pm 0.047 \pm 0.023$	ABLIKIM	06L	BES2	$e^+e^- \to D^0\overline{D}^0$
$0.499 \pm 0.013 \pm 0.038$	[1] ABLIKIM	06N	BES2	$e^+e^- \to D^0\overline{D}^0$

[1] From a measurement of $\sigma(e^+e^- \to D\overline{D})$ at $\sqrt{s} = 3773$ MeV, using the $\psi(3770)$ resonance parameters measured by ABLIKIM 06L. NODE=M053R46;LINKAGE=AB

$\Gamma(D^+D^-)/\Gamma_{total}$ Γ_3/Γ

NODE=M053R47
NODE=M053R47

VALUE	DOCUMENT ID		TECN	COMMENT
0.41 ± 0.04 OUR FIT Error includes scale factor of 2.0.				
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.369 \pm 0.037 \pm 0.028$	ABLIKIM	06L	BES2	$e^+e^- \to D^+D^-$
$0.357 \pm 0.011 \pm 0.034$	[1] ABLIKIM	06N	BES2	$e^+e^- \to D^+D^-$

[1] From a measurement of $\sigma(e^+e^- \to D\overline{D})$ at $\sqrt{s} = 3773$ MeV, using the $\psi(3770)$ resonance parameters measured by ABLIKIM 06L. NODE=M053R47;LINKAGE=AB

$\Gamma(D^0\overline{D}^0)/\Gamma(D^+D^-)$ Γ_2/Γ_3

NODE=M053R5
NODE=M053R5

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
1.253 ± 0.016 OUR FIT					
1.253 ± 0.016 OUR AVERAGE					
$1.252 \pm 0.009 \pm 0.013$	5.3M	BONVICINI	14	CLEO	$e^+e^- \to D\overline{D}$
$1.39 \pm 0.31 \pm 0.12$		PAKHLOVA	08	BELL	10.6 $e^+e^- \to D\overline{D}\gamma$
$1.78 \pm 0.33 \pm 0.24$		AUBERT	07BE	BABR	$e^+e^- \to D\overline{D}\gamma$
$1.27 \pm 0.12 \pm 0.08$		ABLIKIM	06L	BES2	$e^+e^- \to D\overline{D}$
$2.43 \pm 1.50 \pm 0.43$	34	[1] CHISTOV	04	BELL	$B^+ \to \psi(3770)K^+$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$1.258 \pm 0.016 \pm 0.014$		[2] DOBBS	07	CLEO	$e^+e^- \to D\overline{D}$

[1] See ADLER 88C for older measurements of this quantity. NODE=M053R5;LINKAGE=CH
[2] Superseded by BONVICINI 14. NODE=M053R5;LINKAGE=DO

$\Gamma(J/\psi X)/\Gamma_{total}$ Γ_4/Γ

NODE=M053P00
NODE=M053P00

VALUE (%)	DOCUMENT ID		TECN	COMMENT
$0.5 \pm 0.2 \pm 0.1$	[1] ABLIKIM	21Z	BES3	$e^+e^- \to \ell^+\ell^- X$

[1] From a fit to the $e^+e^- \to J/\psi X$ cross section between 3.645 and 3.891 GeV, with $\psi(2S)$ and $\psi(3770)$ masses, total widths and leptonic widths fixed to the values from the PDG 20. An alternative fit with an improved χ^2, corresponding to a significance of 5.3 σ, uses an additional resonance with a mass of $3766.2 \pm 3.8 \pm 0.4$ MeV/c^2, a total width of $22.2 \pm 5.9 \pm 1.4$ MeV, and Γ(e e)·B($J/\psi X$) $= 79.4 \pm 85.5 \pm 11.7$ eV, possibly compatible with the results of ABLIKIM 08H. NODE=M053P00;LINKAGE=A

$\Gamma(J/\psi\pi^+\pi^-)/\Gamma_{total}$ Γ_5/Γ

NODE=M053R4
NODE=M053R4

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
1.93±0.28 OUR AVERAGE					
1.89±0.20±0.20	231 ± 33	ADAM	06	CLEO	$e^+e^- \to \psi(3770)$
3.4 ±1.4 ±0.9	17.8 ± 4.8	BAI	05	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(J/\psi\pi^0\pi^0)/\Gamma_{total}$ Γ_6/Γ

NODE=M053R7
NODE=M053R7

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
0.080±0.025±0.016	39 ± 14	ADAM	06	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(J/\psi\eta)/\Gamma_{total}$ Γ_7/Γ

NODE=M053R8
NODE=M053R8

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
8.7±1.2 OUR AVERAGE					
8.7±1.0±0.8	232 ± 23	[1] ABLIKIM	23V	BES3	$e^+e^- \to \psi(3770)$
8.7±3.3±2.2	22 ± 10	ADAM	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Incoherent fit. Alternate fits that include interference with background yield results between $(11.2 \pm 5.8 \pm 1.1) \times 10^{-4}$ and $(11.6 \pm 6.0 \pm 1.1) \times 10^{-4}$.

NODE=M053R8;LINKAGE=A

$\Gamma(J/\psi\pi^0)/\Gamma_{total}$ Γ_8/Γ

NODE=M053R9
NODE=M053R9

VALUE (units 10^{-5})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<28	90	<10	ADAM	06	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(e^+e^-)/\Gamma_{total}$ Γ_9/Γ

NODE=M053R2
NODE=M053R2

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
0.96±0.07 OUR FIT Error includes scale factor of 1.3.				
1.3 ±0.2	RAPIDIS	77	LGW	e^+e^-

DECAYS TO LIGHT HADRONS

NODE=M053250

$\Gamma(b_1(1235)\pi)/\Gamma_{total}$ Γ_{10}/Γ

NODE=M053R82
NODE=M053R82

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
<1.4	90	[1] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R82;LINKAGE=AD

$\Gamma(\phi\eta')/\Gamma_{total}$ Γ_{11}/Γ

NODE=M053R83
NODE=M053R83

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<2.3 × 10⁻⁵	90	[1] ABLIKIM	23BC	BES3	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<7 \times 10^{-4}$	90	[2] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$

[1] ABLIKIM 23BC fit to $e^+e^- \to \phi\eta'$ cross sections between 3.508 and 4.951 GeV considering interference between continuum and $\psi(3770)$ amplitudes.

NODE=M053R83;LINKAGE=A

[2] ADAMS 06 compare cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R83;LINKAGE=AD

$\Gamma(\omega\eta')/\Gamma_{total}$ Γ_{12}/Γ

NODE=M053R84
NODE=M053R84

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<4	90	[1] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R84;LINKAGE=AD

$\Gamma(\rho^0\eta')/\Gamma_{total}$ Γ_{13}/Γ

NODE=M053R85
NODE=M053R85

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<6	90	[1] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R85;LINKAGE=AD

$\Gamma(\phi\eta)/\Gamma_{total}$ Γ_{14}/Γ

NODE=M053R6
NODE=M053R6

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
3.1±0.6±0.3		[1] ADAMS	06	CLEO	3.773 $e^+e^- \to \phi\eta$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<19	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R6;LINKAGE=AD

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R6;LINKAGE=AK

$\Gamma(\omega\eta)/\Gamma_{total}$ Γ_{15}/Γ

NODE=M053R86
NODE=M053R86

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
<1.4	90	[1] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R86;LINKAGE=AD

$\Gamma(\rho^0\eta)/\Gamma_{total}$ Γ_{16}/Γ

NODE=M053R87
NODE=M053R87

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<5	90	[1] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R87;LINKAGE=AD

$\Gamma(\phi\pi^0)/\Gamma_{total}$ Γ_{17}/Γ

NODE=M053R11
NODE=M053R11

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
< 3	90	[1] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<50	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R11;LINKAGE=AD

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R11;LINKAGE=AK

$\Gamma(\omega\pi^0)/\Gamma_{total}$ Γ_{18}/Γ

NODE=M053R88
NODE=M053R88

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<6	90	[1] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R88;LINKAGE=AD

$\Gamma(\pi^+\pi^-\pi^0)/\Gamma_{total}$ Γ_{19}/Γ

NODE=M053R89
NODE=M053R89

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<5	90	[1,2] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Data suggest possible destructive interference with continuum.

NODE=M053R89;LINKAGE=AD

[2] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R89;LINKAGE=AS

$\Gamma(\rho\pi)/\Gamma_{total}$ Γ_{20}/Γ

NODE=M053R90
NODE=M053R90

VALUE (units 10^{-6})	CL%	DOCUMENT ID		TECN	COMMENT
<5	90	[1,2] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R90;LINKAGE=AD

[2] Data suggest possible destructive interference with continuum.

NODE=M053R90;LINKAGE=AS

$\Gamma(K^+K^-)/\Gamma_{total}$ Γ_{21}/Γ

NODE=M053R00
NODE=M053R00

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$\sim 10^{-5}$	[1] DRUZHININ	15	RVUE	$e^+e^- \to \psi(3770)$

[1] DRUZHININ 15 uses BABAR and CLEO data takitaking into account interference of the processes $e^+e^- \to K^+K^-$ and $e^+e^- \to K^0_S K^0_L$.

NODE=M053R00;LINKAGE=A

$\Gamma(K^*(892)^+K^- + \text{c.c.})/\Gamma_{total}$ Γ_{22}/Γ

NODE=M053R91
NODE=M053R91

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
<1.4	90	[1] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R91;LINKAGE=AS

$\Gamma(K^*(892)^0\overline{K}^0 + \text{c.c.})/\Gamma_{total}$ Γ_{23}/Γ

NODE=M053R92
NODE=M053R92

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<1.2	90	[1] ADAMS	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Comparing cross sections at $\sqrt{s} = 3.773$ GeV and $\sqrt{s} = 3.671$ GeV, neglecting interference, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

NODE=M053R92;LINKAGE=AD

$\Gamma(K_S^0 K_L^0)/\Gamma_{total}$ Γ_{24}/Γ

NODE=M053R3
NODE=M053R3

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
$2.63^{+1.40}_{-1.59}$		[1] ABLIKIM	24A	BES3	$e^+e \to K_S^0 K_L^0 (K_S^0 \to \pi^+\pi^-)$

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

< 1.2	90	[2] CRONIN-HEN..06		CLEO	$e^+e^- \to \psi(3770)$
<21	90	[3] ABLIKIM	04F	BES	$e^+e^- \to \psi(3770)$

[1] From the 1σ contour in the B.R. versus ϕ (relative phase between the continuum and $\psi(3770)$ amplitudes) likelihood scan. Mass, total width and electronic width of $\psi(3770)$ fixed at PDG 22 values. NODE=M053R3;LINKAGE=A

[2] Using $\sigma(e^+e^- \to \psi(3770) \to \text{hadrons}) = (6.38 \pm 0.08^{+0.41}_{-0.30})$ nb from BESSON 06 and $B(K_S^0 \to \pi^+\pi^-) = 0.6895 \pm 0.0014$. NODE=M053R3;LINKAGE=CR

[3] Using $B(K_S^0 \to \pi^+\pi^-) = 0.6860 \pm 0.0027$. NODE=M053R3;LINKAGE=AB

$\Gamma(2(\pi^+\pi^-))/\Gamma_{total}$ Γ_{25}/Γ

NODE=M053R21
NODE=M053R21

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<11.2	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

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

<48	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance. NODE=M053R21;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R21;LINKAGE=AK

$\Gamma(2(\pi^+\pi^-)\pi^0)/\Gamma_{total}$ Γ_{26}/Γ

NODE=M053R22
NODE=M053R22

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<10.6	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

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

<62	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance. NODE=M053R22;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R22;LINKAGE=AK

$\Gamma(2(\pi^+\pi^-\pi^0))/\Gamma_{total}$ Γ_{27}/Γ

NODE=M053R72
NODE=M053R72

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<58.5	90	305	ABLIKIM	08N	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(\omega\pi^+\pi^-)/\Gamma_{total}$ Γ_{28}/Γ

NODE=M053R24
NODE=M053R24

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 6.0	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

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

<55	90	[2] ABLIKIM	07I	BES2	3.77 e^+e^-

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance. NODE=M053R24;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R24;LINKAGE=AK

$\Gamma(3(\pi^+\pi^-))/\Gamma_{total}$ Γ_{29}/Γ

NODE=M053R07
NODE=M053R07

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<91	90	[1] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R07;LINKAGE=AK

$\Gamma(3(\pi^+\pi^-)\pi^0)/\Gamma_{total}$ Γ_{30}/Γ

NODE=M053R10
NODE=M053R10

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<137	90	[1] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R10;LINKAGE=AK

$\Gamma(3(\pi^+\pi^-)2\pi^0)/\Gamma_{total}$ Γ_{31}/Γ

NODE=M053R74
NODE=M053R74

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<117.4	90	59	ABLIKIM	08N	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(\eta\pi^+\pi^-)/\Gamma_{total}$ Γ_{32}/Γ

NODE=M053R23
NODE=M053R23

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<1.24	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.3	90	[2] ABLIKIM	10D	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.
NODE=M053R23;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.
NODE=M053R23;LINKAGE=AK

$\Gamma(\pi^+\pi^-2\pi^0)/\Gamma_{total}$ Γ_{33}/Γ

NODE=M053R70
NODE=M053R70

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<8.9	90	218	ABLIKIM	08N	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(\rho^0\pi^+\pi^-)/\Gamma_{total}$ Γ_{34}/Γ

NODE=M053R53
NODE=M053R53

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<6.9	90	[1] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.
NODE=M053R53;LINKAGE=AK

$\Gamma(\eta 3\pi)/\Gamma_{total}$ Γ_{35}/Γ

NODE=M053R25
NODE=M053R25

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<13.4	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.
NODE=M053R25;LINKAGE=HU

$\Gamma(\eta 2(\pi^+\pi^-))/\Gamma_{total}$ Γ_{36}/Γ

NODE=M053R08
NODE=M053R08

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<243	90	[1] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.
NODE=M053R08;LINKAGE=AK

$\Gamma(\eta\rho^0\pi^+\pi^-)/\Gamma_{total}$ Γ_{37}/Γ

NODE=M053R77
NODE=M053R77

VALUE (units 10^{-2})	CL%	DOCUMENT ID		TECN	COMMENT
<1.45	90	[1] ABLIKIM	10D	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.
NODE=M053R77;LINKAGE=AK

$\Gamma(\eta'3\pi)/\Gamma_{total}$ Γ_{38}/Γ

NODE=M053R26
NODE=M053R26

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<24.4	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.
NODE=M053R26;LINKAGE=HU

$\Gamma(K^+K^-\pi^+\pi^-)/\Gamma_{total}$ Γ_{39}/Γ

NODE=M053R27
NODE=M053R27

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 9.0	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<48	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.
NODE=M053R27;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.
NODE=M053R27;LINKAGE=AK

$\Gamma(\phi\pi^+\pi^-)/\Gamma_{total}$ Γ_{40}/Γ

NODE=M053R28
NODE=M053R28

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 4.1	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<16	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.
NODE=M053R28;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.
NODE=M053R28;LINKAGE=AK

$\Gamma(K^+K^-2\pi^0)/\Gamma_{total}$ Γ_{41}/Γ

NODE=M053R71
NODE=M053R71

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<4.2	90	14	ABLIKIM	08N	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(4(\pi^+\pi^-))/\Gamma_{total}$ Γ_{42}/Γ

NODE=M053R50
NODE=M053R50

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<16.7	90	[1] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R50;LINKAGE=AK

$\Gamma(4(\pi^+\pi^-)\pi^0)/\Gamma_{total}$ Γ_{43}/Γ

NODE=M053R52
NODE=M053R52

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<30.6	90	[1] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R52;LINKAGE=AK

$\Gamma(\phi f_0(980))/\Gamma_{total}$ Γ_{44}/Γ

NODE=M053R29
NODE=M053R29

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<4.5	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R29;LINKAGE=HU

$\Gamma(K^+K^-\pi^+\pi^-\pi^0)/\Gamma_{total}$ Γ_{45}/Γ

NODE=M053R30
NODE=M053R30

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 23.6	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<111	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R30;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R30;LINKAGE=AK

$\Gamma(K^+K^-\rho^0\pi^0)/\Gamma_{total}$ Γ_{46}/Γ

NODE=M053R58
NODE=M053R58

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<8	90	[1] ABLIKIM	07I	BES2	3.77 e^+e^-

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R58;LINKAGE=AK

$\Gamma(K^+K^-\rho^+\pi^-)/\Gamma_{total}$ Γ_{47}/Γ

NODE=M053R59
NODE=M053R59

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<146	90	[1] ABLIKIM	07I	BES2	3.77 e^+e^-

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R59;LINKAGE=AK

$\Gamma(\omega K^+K^-)/\Gamma_{total}$ Γ_{48}/Γ

NODE=M053R32
NODE=M053R32

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 3.4	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<66	90	[2] ABLIKIM	07I	BES2	3.77 e^+e^-

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R32;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R32;LINKAGE=AK

$\Gamma(\phi\pi^+\pi^-\pi^0)/\Gamma_{total}$ Γ_{49}/Γ

NODE=M053R60
NODE=M053R60

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<38	90	[1] ABLIKIM	07I	BES2	3.77 e^+e^-

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R60;LINKAGE=AK

$\Gamma(K^{*0}K^-\pi^+\pi^0 + \text{c.c.})/\Gamma_{total}$ Γ_{50}/Γ

NODE=M053R61
NODE=M053R61

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<162	90	[1] ABLIKIM	07I	BES2	3.77 e^+e^-

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R61;LINKAGE=AK

$\Gamma(K^{*+}K^-\pi^+\pi^- + \text{c.c.})/\Gamma_{\text{total}}$ Γ_{51}/Γ

NODE=M053R62
NODE=M053R62

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<323	90	[1] ABLIKIM	07I	BES2	3.77 e^+e^-

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R62;LINKAGE=AK

$\Gamma(K^+K^-\pi^+\pi^-2\pi^0)/\Gamma_{\text{total}}$ Γ_{52}/Γ

NODE=M053R73
NODE=M053R73

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<26.7	90	24	ABLIKIM	08N	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^+K^-2(\pi^+\pi^-))/\Gamma_{\text{total}}$ Γ_{53}/Γ

NODE=M053R57
NODE=M053R57

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<10.3	90	[1] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R57;LINKAGE=AK

$\Gamma(K^+K^-2(\pi^+\pi^-)\pi^0)/\Gamma_{\text{total}}$ Γ_{54}/Γ

NODE=M053R51
NODE=M053R51

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<36.0	90	[1] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R51;LINKAGE=AK

$\Gamma(\eta K^+K^-)/\Gamma_{\text{total}}$ Γ_{55}/Γ

NODE=M053R31
NODE=M053R31

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 4.1	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<31	90	[2] ABLIKIM	10D	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R31;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R31;LINKAGE=AK

$\Gamma(\eta K^+K^-\pi^+\pi^-)/\Gamma_{\text{total}}$ Γ_{56}/Γ

NODE=M053R78
NODE=M053R78

VALUE (units 10^{-2})	CL%	DOCUMENT ID		TECN	COMMENT
<1.24	90	[1] ABLIKIM	10D	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R78;LINKAGE=AK

$\Gamma(\rho^0K^+K^-)/\Gamma_{\text{total}}$ Γ_{57}/Γ

NODE=M053R54
NODE=M053R54

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<5.0	90	[1] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R54;LINKAGE=AK

$\Gamma(2(K^+K^-))/\Gamma_{\text{total}}$ Γ_{58}/Γ

NODE=M053R33
NODE=M053R33

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 6.0	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<17	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R33;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R33;LINKAGE=AK

$\Gamma(\phi K^+K^-)/\Gamma_{\text{total}}$ Γ_{59}/Γ

NODE=M053R34
NODE=M053R34

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 7.5	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<24	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R34;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R34;LINKAGE=AK

$\Gamma(2(K^+K^-)\pi^0)/\Gamma_{total}$ Γ_{60}/Γ

NODE=M053R35
NODE=M053R35

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 2.9	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

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

<46	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.
NODE=M053R35;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.
NODE=M053R35;LINKAGE=AK

$\Gamma(2(K^+K^-)\pi^+\pi^-)/\Gamma_{total}$ Γ_{61}/Γ

NODE=M053R48
NODE=M053R48

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<3.2	90	[1] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.
NODE=M053R48;LINKAGE=AK

$\Gamma(K^0_S K^-\pi^+)/\Gamma_{total}$ Γ_{62}/Γ

NODE=M053R64
NODE=M053R64

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<3.2	90	18	ABLIKIM	08M	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^-\pi^+\pi^0)/\Gamma_{total}$ Γ_{63}/Γ

NODE=M053R65
NODE=M053R65

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<13.3	90	40	ABLIKIM	08M	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^-\rho^+)/\Gamma_{total}$ Γ_{64}/Γ

NODE=M053R15
NODE=M053R15

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<6.6	90	ABLIKIM	09C	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^-2\pi^+\pi^-)/\Gamma_{total}$ Γ_{65}/Γ

NODE=M053R66
NODE=M053R66

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<8.7	90	39	ABLIKIM	08M	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^-\pi^+\rho^0)/\Gamma_{total}$ Γ_{66}/Γ

NODE=M053R16
NODE=M053R16

VALUE (units 10^{-2})	CL%	DOCUMENT ID		TECN	COMMENT
<1.6	90	ABLIKIM	09C	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^-\pi^+\eta)/\Gamma_{total}$ Γ_{67}/Γ

NODE=M053R17
NODE=M053R17

VALUE (units 10^{-2})	CL%	DOCUMENT ID		TECN	COMMENT
<1.3	90	ABLIKIM	09C	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^-2\pi^+\pi^-\pi^0)/\Gamma_{total}$ Γ_{68}/Γ

NODE=M053R67
NODE=M053R67

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<41.8	90	23	ABLIKIM	08M	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^-2\pi^+\pi^-\eta)/\Gamma_{total}$ Γ_{69}/Γ

NODE=M053R18
NODE=M053R18

VALUE (units 10^{-2})	CL%	DOCUMENT ID		TECN	COMMENT
<4.8	90	ABLIKIM	09C	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^-\pi^+2(\pi^+\pi^-))/\Gamma_{total}$ Γ_{70}/Γ

NODE=M053R68
NODE=M053R68

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<12.2	90	4	ABLIKIM	08M	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^-\pi^+2\pi^0)/\Gamma_{total}$ Γ_{71}/Γ

NODE=M053R69
NODE=M053R69

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<26.5	90	17	ABLIKIM	08M	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^-K^+K^-\pi^+)/\Gamma_{total}$ Γ_{72}/Γ

NODE=M053R19
NODE=M053R19

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<4.9	90	ABLIKIM	09C	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^-K^+K^-\pi^+\pi^0)/\Gamma_{total}$ Γ_{73}/Γ

NODE=M053R75
NODE=M053R75

VALUE (units 10^{-2})	CL%	DOCUMENT ID		TECN	COMMENT
<3.0	90	ABLIKIM	09C	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^0_S K^- K^+ K^- \pi^+ \eta)/\Gamma_{total}$ Γ_{74}/Γ

NODE=M053R76
NODE=M053R76

VALUE (units 10^{-2})	CL%	DOCUMENT ID		TECN	COMMENT
<2.2	90	ABLIKIM	09C	BES2	$e^+e^- \to \psi(3770)$

$\Gamma(K^{*0} K^- \pi^+ + \text{c.c.})/\Gamma_{total}$ Γ_{75}/Γ

NODE=M053R55
NODE=M053R55

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<9.7	90	[1] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R55;LINKAGE=AK

$\Gamma(p\bar{p})/\Gamma_{total}$ Γ_{76}/Γ

NODE=M053R98
NODE=M053R98

VALUE (units 10^{-6})	EVTS	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
not seen		[1] AAIJ	17AD	LHCB	$pp \to B^+X \to p\bar{p}K^+X$
$7.1^{+\ 8.6}_{-\ 2.9}$	684	[2] ABLIKIM	14L	BES3	$e^+e^- \to \psi(3770)$
310 ±30	684	[3] ABLIKIM	14L	BES3	$e^+e^- \to \psi(3770)$

OCCUR=2

[1] AAIJ 17AD reports $B(B^+ \to \psi(3770)K^+ \to p\bar{p}K^+)/B(B^+ \to J/\psi K^+ \to p\bar{p}K^+) < 0.09$ (0.10) at 90% (95%) CL.

NODE=M053R98;LINKAGE=C

[2] Solution I of two equivalent solutions in a fit with a resonance interfering with continuum.

NODE=M053R98;LINKAGE=A

[3] Solution II of two equivalent solutions in a fit with a resonance interfering with continuum.

NODE=M053R98;LINKAGE=B

$\Gamma(p\bar{p}\pi^0)/\Gamma_{total}$ Γ_{77}/Γ

NODE=M053R09
NODE=M053R09

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 0.4	90	[1,2] ABLIKIM	14O	BES3	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
59 $^{+3}_{-2}$ ±5		[1,3] ABLIKIM	14O	BES3	$e^+e^- \to \psi(3770)$
<12	90	[4] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

OCCUR=2

[1] Calculated by the authors using $\sigma(e^+e^- \to \psi(3770) \to \text{hadrons}) = 6.36 \pm 0.08^{+0.41}_{-0.30}$ nb from BESSON 10.

NODE=M053R09;LINKAGE=A

[2] Solution I of two equivalent solutions in a fit with a resonance interfering with continuum.

NODE=M053R09;LINKAGE=B

[3] Solution II of two equivalent solutions in a fit with a resonance interfering with continuum.

NODE=M053R09;LINKAGE=C

[4] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R09;LINKAGE=AK

$\Gamma(p\bar{p}\pi^+\pi^-)/\Gamma_{total}$ Γ_{78}/Γ

NODE=M053R36
NODE=M053R36

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 5.8	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<16	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R36;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R36;LINKAGE=AK

$\Gamma(\Lambda\bar{\Lambda})/\Gamma_{total}$ Γ_{79}/Γ

NODE=M053R42
NODE=M053R42

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<1.2 × 10⁻⁴	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$<1.8 \times 10^{-4}$	90	[2] ABLIKIM	21AS	BES3	$e^+e^- \to \psi(3770)$
$<4 \times 10^{-4}$	90	[3] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R42;LINKAGE=HU

[2] From a measurement of the $e^+e^- \to \Lambda\bar{\Lambda}$ cross section between 3.5 and 4.6 GeV. At a 90% CL the lower bound is $> 2.4 \times 10^{-6}$.

NODE=M053R42;LINKAGE=A

[3] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R42;LINKAGE=AK

$\Gamma(p\bar{p}\pi^+\pi^-\pi^0)/\Gamma_{total}$ Γ_{80}/Γ

NODE=M053R37
NODE=M053R37

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<18.5	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<73	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R37;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R37;LINKAGE=AK

$\Gamma(\omega p\bar{p})/\Gamma_{total}$ Γ_{81}/Γ

NODE=M053R39
NODE=M053R39

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 2.9	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<30	90	[2] ABLIKIM	07I	BES2	3.77 e^+e^-

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance. NODE=M053R39;LINKAGE=HU

[2] Using $\sigma^{\rm obs} = 7.15 \pm 0.27 \pm 0.27$ nb and neglecting interference. NODE=M053R39;LINKAGE=AB

$\Gamma(\Lambda\bar{\Lambda}\pi^0)/\Gamma_{total}$ Γ_{82}/Γ

NODE=M053R63
NODE=M053R63

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 0.7	90	[1] ABLIKIM	13Q	BES3	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<12	90	[2] ABLIKIM	07I	BES2	3.77 e^+e^-

[1] Assuming that interference effects between resonance and continuum can be neglected. NODE=M053R63;LINKAGE=A

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R63;LINKAGE=AK

$\Gamma(p\bar{p}2(\pi^+\pi^-))/\Gamma_{total}$ Γ_{83}/Γ

NODE=M053R49
NODE=M053R49

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<2.6	90	[1] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R49;LINKAGE=AK

$\Gamma(\eta p\bar{p})/\Gamma_{total}$ Γ_{84}/Γ

NODE=M053R38
NODE=M053R38

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 5.4	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<11	90	[2] ABLIKIM	10D	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance. NODE=M053R38;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R38;LINKAGE=AK

$\Gamma(\eta p\bar{p}\pi^+\pi^-)/\Gamma_{total}$ Γ_{85}/Γ

NODE=M053R79
NODE=M053R79

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<3.3	90	[1] ABLIKIM	10D	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R79;LINKAGE=AK

$\Gamma(\rho^0 p\bar{p})/\Gamma_{total}$ Γ_{86}/Γ

NODE=M053R56
NODE=M053R56

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<1.7	90	[1] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R56;LINKAGE=AK

$\Gamma(p\bar{p}K^+K^-)/\Gamma_{total}$ Γ_{87}/Γ

NODE=M053R40
NODE=M053R40

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 3.2	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<11	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance. NODE=M053R40;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R40;LINKAGE=AK

$\Gamma(\eta p\bar{p}K^+K^-)/\Gamma_{total}$ Γ_{88}/Γ

NODE=M053R80
NODE=M053R80

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<6.9	90	[1] ABLIKIM	10D	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb. NODE=M053R80;LINKAGE=AK

$\Gamma(\pi^0 p\bar{p}K^+K^-)/\Gamma_{total}$ Γ_{89}/Γ

NODE=M053R81
NODE=M053R81

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<1.2	90	[1] ABLIKIM	10D	BES2	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R81;LINKAGE=AK

$\Gamma(\phi p\bar{p})/\Gamma_{total}$ Γ_{90}/Γ

NODE=M053R41
NODE=M053R41

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<1.3	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<9	90	[2] ABLIKIM	07B	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R41;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R41;LINKAGE=AK

$\Gamma(\Lambda\bar{\Lambda}\pi^+\pi^-)/\Gamma_{total}$ Γ_{91}/Γ

NODE=M053R43
NODE=M053R43

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
< 2.5	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
< 4.7	90	[2] ABLIKIM	13Q	BES3	$e^+e^- \to \psi(3770)$
<39	90	[3] ABLIKIM	07F	BES2	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R43;LINKAGE=HU

[2] Assuming that interference effects between resonance and continuum can be neglected.

NODE=M053R43;LINKAGE=A

[3] Assuming that interference effects between resonance and continuum can be neglected and using $\sigma^{obs}(e^+e^- \to \psi(3770)) = 7.15 \pm 0.38$ nb.

NODE=M053R43;LINKAGE=AK

$\Gamma(\Lambda\bar{p}K^+)/\Gamma_{total}$ Γ_{92}/Γ

NODE=M053R44
NODE=M053R44

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<2.8	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R44;LINKAGE=HU

$\Gamma(\Lambda\bar{p}K^+\pi^+\pi^-)/\Gamma_{total}$ Γ_{93}/Γ

NODE=M053R45
NODE=M053R45

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<6.3	90	[1] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

[1] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.

NODE=M053R45;LINKAGE=HU

$\Gamma(\Lambda\bar{\Lambda}\eta)/\Gamma_{total}$ Γ_{94}/Γ

NODE=M053R93
NODE=M053R93

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<1.9	90	[1] ABLIKIM	13Q	BES3	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected.

NODE=M053R93;LINKAGE=A

$\Gamma(\Sigma^+\bar{\Sigma}^-)/\Gamma_{total}$ Γ_{95}/Γ

NODE=M053R94
NODE=M053R94

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<1.0	90	[1] ABLIKIM	13Q	BES3	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected.

NODE=M053R94;LINKAGE=A

$\Gamma(\Sigma^0\bar{\Sigma}^0)/\Gamma_{total}$ Γ_{96}/Γ

NODE=M053R95
NODE=M053R95

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<0.4	90	[1] ABLIKIM	13Q	BES3	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected.

NODE=M053R95;LINKAGE=A

$\Gamma(\Xi^0\bar{\Xi}^0)/\Gamma_{total}$ Γ_{97}/Γ

NODE=M053R97
NODE=M053R97

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1.4	90	[1] ABLIKIM	13Q	BES3	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected.

NODE=M053R97;LINKAGE=A

$\Gamma(\Xi^-\overline{\Xi}^+)/\Gamma_{total}$ Γ_{98}/Γ

NODE=M053R96
NODE=M053R96

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1.5	90	[1] ABLIKIM	13Q	BES3	$e^+e^- \to \psi(3770)$

[1] Assuming that interference effects between resonance and continuum can be neglected. NODE=M053R96;LINKAGE=A

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NODE=M053240

$\Gamma(\gamma\chi_{c2})/\Gamma_{total}$ Γ_{101}/Γ

NODE=M053R03
NODE=M053R03

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<0.64	90	[1] ABLIKIM	15J	BES3	$e^+e^- \to \psi(3770) \to \gamma\gamma J/\psi$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.0	90	[2] BRIERE	06	CLEO	$e^+e^- \to \psi(3770) \to \gamma +$ hadrons
<0.9	90	[3] COAN	06A	CLEO	$e^+e^- \to \psi(3770) \to \gamma\gamma J/\psi$

[1] This limit is equivalent to $(0.25 \pm 0.21 \pm 0.18) \times 10^{-3}$ branching fraction value. NODE=M053R03;LINKAGE=A
[2] Uses $B(\psi(2S) \to \gamma\chi_{c2}) = 9.22 \pm 0.11 \pm 0.46$ % from ATHAR 04, $\psi(2S)$ mass and width from PDG 04, and $\Gamma_{ee}(\psi(2S)) = 2.54 \pm 0.03 \pm 0.11$ keV from ADAM 06. NODE=M053R03;LINKAGE=BR
[3] Using $\Gamma_{ee}(\psi(2S)) = (2.54 \pm 0.03 \pm 0.11)$ keV from ADAM 06 and taking $\sigma(e^+e^- \to D\overline{D})$ from HE 05 for $\sigma(e^+e^- \to \psi(3770))$. NODE=M053R03;LINKAGE=CO

$\Gamma(\gamma\chi_{c1})/\Gamma_{total}$ Γ_{102}/Γ

NODE=M053R02
NODE=M053R02

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
2.49±0.23 OUR AVERAGE					
2.0 ±0.8 ±0.1	202	[1] ABLIKIM	16B	BES3	$e^+e^- \to \psi(3770) \to \gamma +$ hadrons
2.48±0.15±0.23	0.6k	ABLIKIM	15J	BES3	$e^+e^- \to \psi(3770) \to \gamma\gamma J/\psi$
2.4 ±0.8 ±0.2		[2] ABLIKIM	14H	BES3	$e^+e^- \to \psi(3770) \to K^0_S K^\pm \pi^\mp$
2.9 ±0.5 ±0.4		[3] BRIERE	06	CLEO	$e^+e^- \to \psi(3770) \to \gamma +$ hadrons, $\gamma\gamma J/\psi$ OCCUR=2
• • • We do not use the following data for averages, fits, limits, etc. • • •					
3.9 ±1.4 ±0.6	54	[4] BRIERE	06	CLEO	$e^+e^- \to \psi(3770) \to \gamma +$ hadrons
2.8 ±0.5 ±0.4	53	[5] COAN	06A	CLEO	$e^+e^- \to \psi(3770) \to \gamma\gamma J/\psi$

[1] ABLIKIM 16B reports $(1.94 \pm 0.42 \pm 0.64) \times 10^{-3}$ from a measurement of $[\Gamma(\psi(3770) \to \gamma\chi_{c1})/\Gamma_{total}]$ / $[B(\psi(2S) \to \gamma\chi_{c1}(1P))]$ assuming $B(\psi(2S) \to \gamma\chi_{c1}(1P)) = (9.55 \pm 0.31) \times 10^{-2}$, which we rescale to our best value $B(\psi(2S) \to \gamma\chi_{c1}(1P)) = (9.75 \pm 0.27) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=M053R02;LINKAGE=A
[2] ABLIKIM 14H reports $[\Gamma(\psi(3770) \to \gamma\chi_{c1})/\Gamma_{total}] \times [B(\chi_{c1}(1P) \to K^0_S K^\pm \pi^\mp)] = (8.51 \pm 2.39 \pm 1.42) \times 10^{-6}$ which we divide by our best value $B(\chi_{c1}(1P) \to K^0_S K^\pm \pi^\mp) = 0.00349 \pm 0.00031$. Our first error is their experiment's error and our second error is the systematic error from using our best value. We have calculated the best value of $B(\chi_{c1}(1P) \to K^0_S K^\pm \pi^\mp)$ as 1/2 of $B(\chi_{c1}(1P) \to \overline{K}^0 K^+ \pi^- +$ c.c.) $= (7.0 \pm 0.6) \times 10^{-3}$. NODE=M053R02;LINKAGE=AB
[3] Averages the two measurements from COAN 06A and BRIERE 06. NODE=M053R02;LINKAGE=BI
[4] Uses $B(\psi(2S) \to \gamma\chi_{c1}) = 9.07 \pm 0.11 \pm 0.54$ % from ATHAR 04, $\psi(2S)$ mass and width from PDG 04, and $\Gamma_{ee}(\psi(2S)) = 2.54 \pm 0.03 \pm 0.11$ keV from ADAM 06. NODE=M053R02;LINKAGE=BR
[5] Using $\Gamma_{ee}(\psi(2S)) = (2.54 \pm 0.03 \pm 0.11)$ keV from ADAM 06 and taking $\sigma(e^+e^- \to D\overline{D})$ from HE 05 for $\sigma(e^+e^- \to \psi(3770))$. NODE=M053R02;LINKAGE=CO

$\Gamma(\gamma\chi_{c1})/\Gamma(J/\psi\pi^+\pi^-)$ Γ_{102}/Γ_5

NODE=M053R04
NODE=M053R04

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
1.49±0.31±0.26	53 ± 10	[1] COAN	06A	CLEO	$e^+e^- \to \psi(3770) \to \gamma\gamma J/\psi$

[1] Using $B(\psi(3770) \to J/\psi\pi^+\pi^-) = (1.89 \pm 0.20 \pm 0.20) \times 10^{-3}$ from ADAM 06. NODE=M053R04;LINKAGE=CO

$\Gamma(\gamma\chi_{c0})/\Gamma_{\text{total}}$ Γ_{103}/Γ

NODE=M053R01
NODE=M053R01

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
6.9±0.6 OUR AVERAGE						
6.7±0.7±0.2		2.2k	[1] ABLIKIM	16B	BES3	$e^+e^- \to \psi(3770) \to \gamma +$ hadrons
7.3±0.7±0.6		274	BRIERE	06	CLEO	$e^+e^- \to \psi(3770) \to \gamma +$ hadrons
• • • We do not use the following data for averages, fits, limits, etc. • • •						
< 44	90		[2] COAN	06A	CLEO	$e^+e^- \to \psi(3770) \to \gamma\gamma J/\psi$

[1] ABLIKIM 16B reports $(6.88 \pm 0.28 \pm 0.67) \times 10^{-3}$ from a measurement of $[\Gamma(\psi(3770) \to \gamma\chi_{c0})/\Gamma_{\text{total}}]$ / $[B(\psi(2S) \to \gamma\chi_{c0}(1P))]$ assuming $B(\psi(2S) \to \gamma\chi_{c0}(1P)) = (9.99 \pm 0.27) \times 10^{-2}$, which we rescale to our best value $B(\psi(2S) \to \gamma\chi_{c0}(1P)) = (9.75 \pm 0.22) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.
NODE=M053R01;LINKAGE=B

[2] Using $\Gamma_{ee}(\psi(2S)) = (2.54 \pm 0.03 \pm 0.11)$ keV from ADAM 06 and taking $\sigma(e^+e^- \to D\overline{D})$ from HE 05 for $\sigma(e^+e^- \to \psi(3770))$.
NODE=M053R01;LINKAGE=CO

$\Gamma(\gamma\chi_{c0})/\Gamma(\gamma\chi_{c2})$ $\Gamma_{103}/\Gamma_{101}$

NODE=M053R06
NODE=M053R06

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
>8	90	[1] BRIERE	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Not independent of other results in BRIERE 06.
NODE=M053R06;LINKAGE=BR

$\Gamma(\gamma\chi_{c0})/\Gamma(\gamma\chi_{c1})$ $\Gamma_{103}/\Gamma_{102}$

NODE=M053R05
NODE=M053R05

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2.5±0.6	[1] BRIERE	06	CLEO	$e^+e^- \to \psi(3770)$

[1] Not independent of other results in BRIERE 06.
NODE=M053R05;LINKAGE=BR

$\Gamma(\gamma\eta_c)/\Gamma_{\text{total}}$ Γ_{104}/Γ

NODE=M053R99
NODE=M053R99

VALUE	CL%	DOCUMENT ID		TECN
$< 7 \times 10^{-4}$	90	[1] ABLIKIM	14H	BES3

[1] ABLIKIM 14H reports $[\Gamma(\psi(3770) \to \gamma\eta_c)/\Gamma_{\text{total}}] \times [B(\eta_c(1S) \to K^0_S K^\pm\pi^\mp)] < 16\times10^{-6}$ which we divide by our best value $B(\eta_c(1S) \to K^0_S K^\pm\pi^\mp) = 2.38\times10^{-2}$. We have calculated the best value of $B(\eta_c(1S) \to K^0_S K^\pm\pi^\mp)$ as 1/3 of $B(\eta_c(1S) \to K\overline{K}\pi) = 7.1 \times 10^{-2}$.
NODE=M053R99;LINKAGE=AB

$\Gamma(\gamma\eta_c(2S))/\Gamma_{\text{total}}$ Γ_{105}/Γ

NODE=M053R20
NODE=M053R20

VALUE	CL%	DOCUMENT ID		TECN
$< 9 \times 10^{-4}$	90	[1] ABLIKIM	14H	BES3

[1] ABLIKIM 14H reports $[\Gamma(\psi(3770) \to \gamma\eta_c(2S))/\Gamma_{\text{total}}] \times [B(\eta_c(2S) \to K^0_S K^\pm\pi^\mp)] < 5.6\times10^{-6}$ which we divide by our best value $B(\eta_c(2S) \to K^0_S K^\pm\pi^\mp) = 6.3\times10^{-3}$. We have calculated the best value of $B(\eta_c(2S) \to K^0_S K^\pm\pi^\mp)$ as 1/3 of $B(\eta_c(2S) \to K\overline{K}\pi) = 1.9 \times 10^{-2}$.
NODE=M053R20;LINKAGE=AB

$\Gamma(\gamma\eta')/\Gamma_{\text{total}}$ Γ_{106}/Γ

NODE=M053R14
NODE=M053R14

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<1.8	90	[1] PEDLAR	09	CLE3	$\psi(2S) \to \gamma X$

[1] Assuming maximal destructive interference between $\psi(3770)$ and continuum sources.
NODE=M053R14;LINKAGE=PE

$\Gamma(\gamma\eta)/\Gamma_{\text{total}}$ Γ_{107}/Γ

NODE=M053R13
NODE=M053R13

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<1.5	90	[1] PEDLAR	09	CLE3	$\psi(2S) \to \gamma X$

[1] Assuming maximal destructive interference between $\psi(3770)$ and continuum sources.
NODE=M053R13;LINKAGE=PE

$\Gamma(\gamma\pi^0)/\Gamma_{\text{total}}$ Γ_{108}/Γ

NODE=M053R12
NODE=M053R12

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<2	90	PEDLAR	09	CLE3	$\psi(2S) \to \gamma X$

$\psi(3770)$ REFERENCES

NODE=M053

ABLIKIM	24A	PRL 132 131901	M. Ablikim *et al.*	(BESIII Collab.)	REFID=62650
ABLIKIM	24AH	JHEP 2405 022	M. Ablikim *et al.*	(BESIII Collab.)	REFID=62688
ABLIKIM	24AL	JHEP 2407 258	M. Ablikim *et al.*	(BESIII Collab.)	REFID=62693
ABLIKIM	24CD	JHEP 2411 062	M. Ablikim *et al.*	(BESIII Collab.)	REFID=63037
HANHART	24	EPJ C84 483	C. Hanhart *et al.*	(JULI, BONN, SIEG+)	REFID=62695
ABLIKIM	23BC	PR D108 052015	M. Ablikim *et al.*	(BESIII Collab.)	REFID=62423
ABLIKIM	23BK	JHEP 2311 228	M. Ablikim *et al.*	(BESIII Collab.)	REFID=62437
ABLIKIM	23V	PR D107 L091101	M. Ablikim *et al.*	(BESIII Collab.)	REFID=62269
PDG	22	PTEP 2022 083C01	R.L. Workman *et al.*	(PDG Collab.)	REFID=61634
ABLIKIM	21AS	PR D104 L091104	M. Ablikim *et al.*	(BESIII Collab.)	REFID=61454
ABLIKIM	21Z	PRL 127 082002	M. Ablikim *et al.*	(BESIII Collab.)	REFID=61265
PDG	20	PTEP 2020 083C01	P.A. Zyla *et al.*	(PDG Collab.)	REFID=60676
AAIJ	19M	JHEP 1907 035	R. Aaij *et al.*	(LHCb Collab.)	REFID=59697
AAIJ	17AD	PL B769 305	R. Aaij *et al.*	(LHCb Collab.)	REFID=57896
SHAMOV	17	PL B769 187	A.G. Shamov, K.Yu. Todyshev		REFID=57900
ABLIKIM	16B	PL B753 103	M. Ablikim *et al.*	(BESIII Collab.)	REFID=57126
ABLIKIM	15J	PR D91 092009	M. Ablikim *et al.*	(BESIII Collab.)	REFID=56775
DRUZHININ	15	PR D92 054024	V.P. Druzhinin	(NOVO)	REFID=56962
ABLIKIM	14H	PR D89 112005	M. Ablikim *et al.*	(BESIII Collab.)	REFID=55899
ABLIKIM	14L	PL B735 101	M. Ablikim *et al.*	(BESIII Collab.)	REFID=55903
ABLIKIM	14O	PR D90 032007	M. Ablikim *et al.*	(BESIII Collab.)	REFID=55906
BONVICINI	14	PR D89 072002	G. Bonvicini *et al.*	(CLEO Collab.)	REFID=55798
ABLIKIM	13Q	PR D87 112011	M. Ablikim *et al.*	(BESIII Collab.)	REFID=55393
ANASHIN	12A	PL B711 292	V.V. Anashin *et al.*	(KEDR Collab.)	REFID=54055
ABLIKIM	10D	EPJ C66 11	M. Ablikim *et al.*	(BES II Collab.)	REFID=53350
BESSON	10	PRL 104 159901 (errat.)	D. Besson *et al.*	(CLEO Collab.)	REFID=53245
ABLIKIM	09C	EPJ C64 243	M. Ablikim *et al.*	(BES Collab.)	REFID=53134
PEDLAR	09	PR D79 111101	T.K. Pedlar *et al.*	(CLEO Collab.)	REFID=52998
ABLIKIM	08B	PL B659 74	M. Ablikim *et al.*	(BES Collab.)	REFID=52129
ABLIKIM	08D	PL B660 315	M. Ablikim *et al.*	(BES Collab.)	REFID=52142
ABLIKIM	08H	PRL 101 102004	M. Ablikim *et al.*	(BES Collab.)	REFID=52254
ABLIKIM	08M	PL B670 179	M. Ablikim *et al.*	(BES Collab.)	REFID=52569
ABLIKIM	08N	PL B670 184	M. Ablikim *et al.*	(BES Collab.)	REFID=52570
AUBERT	08B	PR D77 011102	B. Aubert *et al.*	(BABAR Collab.)	REFID=52120
BRODZICKA	08	PRL 100 092001	J. Brodzicka *et al.*	(BELLE Collab.)	REFID=52144
PAKHLOVA	08	PR D77 011103	G. Pakhlova *et al.*	(BELLE Collab.)	REFID=52132
ABLIKIM	07B	PL B650 111	M. Ablikim *et al.*	(BES Collab.)	REFID=51704
ABLIKIM	07E	PL B652 238	M. Ablikim *et al.*	(BES Collab.)	REFID=51882
ABLIKIM	07F	PL B656 30	M. Ablikim *et al.*	(BES Collab.)	REFID=51940
ABLIKIM	07I	EPJ C52 805	M. Ablikim *et al.*	(BES Collab.)	REFID=52045
ABLIKIM	07K	PR D76 122002	M. Ablikim *et al.*	(BES Collab.)	REFID=52073
AUBERT	07BE	PR D76 111105	B. Aubert *et al.*	(BABAR Collab.)	REFID=52074
DOBBS	07	PR D76 112001	S. Dobbs *et al.*	(CLEO Collab.)	REFID=52075
ABLIKIM	06L	PRL 97 121801	M. Ablikim *et al.*	(BES Collab.)	REFID=51129
ABLIKIM	06N	PL B641 145	M. Ablikim *et al.*	(BES Collab.)	REFID=51131
ADAM	06	PRL 96 082004	N.E. Adam *et al.*	(CLEO Collab.)	REFID=50989
ADAMS	06	PR D73 012002	G.S. Adams *et al.*	(CLEO Collab.)	REFID=50990
BESSON	06	PRL 96 092002	D. Besson *et al.*	(CLEO Collab.)	REFID=51041
Also		PRL 104 159901 (errat.)	D. Besson *et al.*	(CLEO Collab.)	REFID=53245
BRIERE	06	PR D74 031106	R.A. Briere *et al.*	(CLEO Collab.)	REFID=51149
COAN	06A	PRL 96 182002	T.E. Coan *et al.*	(CLEO Collab.)	REFID=51155
CRONIN-HEN...	06	PR D74 012005	D. Cronin-Hennessy *et al.*	(CLEO Collab.)	REFID=51156
HUANG	06A	PRL 96 032003	G.S. Huang *et al.*	(CLEO Collab.)	REFID=50999
BAI	05	PL B605 63	J.Z. Bai *et al.*	(BES Collab.)	REFID=50332
HE	05	PRL 95 121801	Q. He *et al.*	(CLEO Collab.)	REFID=50924
Also		PRL 96 199903 (errat.)	Q. He *et al.*	(CLEO Collab.)	REFID=51211
ABLIKIM	04F	PR D70 077101	M. Ablikim *et al.*	(BES Collab.)	REFID=50185
ATHAR	04	PR D70 112002	S.B. Athar *et al.*	(CLEO Collab.)	REFID=50331
CHISTOV	04	PRL 93 051803	R. Chistov *et al.*	(BELLE Collab.)	REFID=50002
PDG	04	PL B592 1	S. Eidelman *et al.*	(PDG Collab.)	REFID=49653
BAI	02C	PRL 88 101802	J.Z. Bai *et al.*	(BES Collab.)	REFID=50506
ADLER	88C	PRL 60 89	J. Adler *et al.*	(Mark III Collab.)	REFID=40361
SCHINDLER	80	PR D21 2716	R.H. Schindler *et al.*	(Mark II Collab.)	REFID=22222
BACINO	78	PRL 40 671	W.J. Bacino *et al.*	(SLAC, UCLA, UCI)	REFID=11437
RAPIDIS	77	PRL 39 526	P.A. Rapidis *et al.*	(LGW Collab.)	REFID=22220