NODE=S048

Ξ_c^0

$I(J^P) = \frac{1}{2}(\frac{1}{2}^+)$ Status: ∗∗∗∗

Neither J or P has actually been measured.

NODE=S048

Ξ_c^0 MASS

NODE=S048M

The fit uses the Ξ_c^0 and Ξ_c^+ mass and mass-difference measurements.

NODE=S048M

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT	
2470.44±0.28 OUR FIT Error includes scale factor of 1.2.						NODE=S048M
$2470.99^{+0.30}_{-0.50}$ OUR AVERAGE						
2470.85±0.24±0.55	3.4k	AALTONEN	14B	CDF	$p\overline{p}$ at 1.96 TeV	SYCLP2=G
2471.0 ±0.3 $^{+0.2}_{-1.4}$	8.6k	[1] LESIAK	05	BELL	e^+e^-, $\Upsilon(4S)$	SYCLP2=D
2470.0 ±2.8 ±2.6	85	FRABETTI	98B	E687	γ Be, $\overline{E}_\gamma$ = 220 GeV	
2469 ±2 ±3	9	HENDERSON	92B	CLEO	$\Omega^- K^+$	
2472.1 ±2.7 ±1.6	54	ALBRECHT	90F	ARG	e^+e^- at $\Upsilon(4S)$	SYCLP2=C
2473.3 ±1.9 ±1.2	4	BARLAG	90	ACCM	π^- (K^-) Cu 230 GeV	SYCLP2=B
2472 ±3 ±4	19	ALAM	89	CLEO	e^+e^- 10.6 GeV	SYCLP2=A
• • • We do not use the following data for averages, fits, limits, etc. • • •						
2462.1 ±3.1 ±1.4	42	[2] FRABETTI	93C	E687	See FRABETTI 98B	
2471 ±3 ±4	14	AVERY	89	CLEO	See ALAM 89	

[1] The systematic error was (wrongly) given the other way round in LESIAK 05. NODE=S048M;LINKAGE=LE

[2] The FRABETTI 93C mass is well below the other measurements. NODE=S048M;LINKAGE=B

$\Xi_c^0 - \Xi_c^+$ MASS DIFFERENCE

NODE=S048D

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT	
2.72±0.23 OUR FIT Error includes scale factor of 1.1.						NODE=S048D
2.91±0.26 OUR AVERAGE						
2.85±0.30±0.04	5.1/3.4k	AALTONEN	14B	CDF	$p\overline{p}$ at 1.96 TeV	SYCLP2=G
2.9 ±0.5		LESIAK	05	BELL	e^+e^-, $\Upsilon(4S)$	SYCLP2=D
7.0 ±4.5 ±2.2		ALBRECHT	90F	ARG	e^+e^- at $\Upsilon(4S)$	SYCLP2=C
6.8 ±3.3 ±0.5		BARLAG	90	ACCM	π^- (K^-) Cu 230 GeV	SYCLP2=B
5 ±4 ±1		ALAM	89	CLEO	$\Xi_c^0 \to \Xi^-\pi^+$, $\Xi_c^+ \to \Xi^-\pi^+\pi^+$	SYCLP2=A

Ξ_c^0 MEAN LIFE

NODE=S048T

VALUE (10^{-15} s)	EVTS	DOCUMENT ID		TECN	COMMENT
150.4± 2.8 OUR AVERAGE Error includes scale factor of 1.4.					
148.0± 2.3±2.2		[1] AAIJ	22Y	LHCB	$pp \to \Xi_c^0 + X$, $\Xi_c^0 \to pK^-K^-\pi^+$
153.4± 2.4±0.7	22k	[2,3] AAIJ	19AG	LHCB	$\Xi_b^- \to \Xi_c^0\mu^-\overline{\nu}_\mu + X$, $\Xi_c^0 \to pK^-K^-\pi^+$
118 $^{+14}_{-12}$ ±5	110	LINK	02H	FOCS	γ nucleus, ≈ 180 GeV
101 $^{+25}_{-17}$ ±5	42	FRABETTI	93C	E687	γBe, $\overline{E}_\gamma$= 220 GeV
82 $^{+59}_{-30}$	4	BARLAG	90	ACCM	π^- (K^-) Cu 230 GeV

NODE=S048T

[1] Measured in Ξ_c^0 produced promptly in pp collisions, using $D^0 \to K^+K^-\pi^+\pi^-$ as normalisation mode. AAIJ 22Y reports this lifetime value as $(148.0 \pm 2.3 \pm 2.2 \pm 0.2) \times 10^{-15}$ s where the last uncertainty is due to the uncertainty on the D^0 lifetime value from PDG 20 average, $\tau_{D^0} = (410.1 \pm 1.5)$ fs. NODE=S048T;LINKAGE=B

[2] AAIJ 19AG reports $[\Xi_c^0$ MEAN LIFE$]$ / $[D^\pm$ MEAN LIFE$] = 0.1485 \pm 0.0017 \pm 0.0016$ which we multiply by our best value $D^\pm$ MEAN LIFE $= (1.033 \pm 0.005) \times 10^{-12}$ s. Our first error is their experiment's error and our second error is the systematic error from using our best value. NODE=S048T;LINKAGE=A

[3] Measured in Ξ_c^0 produced in semileptonic Ξ_b^- decays. NODE=S048T;LINKAGE=C

Ξ_c^0 DECAY MODES

NODE=S048215;NODE=S048

	Mode	Fraction (Γ_i/Γ)	Confidence level	
	Cabibbo-favored decays			NODE=S048;CLUMP=A
Γ_1	$p K^- K^- \pi^+$	$(4.9 \pm 1.0) \times 10^{-3}$		DESIG=10
Γ_2	$p K^- \overline{K}^*(892)^0, \ \overline{K}^{*0} \to K^- \pi^+$	$(2.0 \pm 0.6) \times 10^{-3}$		DESIG=2
Γ_3	$p K^- K^- \pi^+$ (no $\overline{K}^{*0}$)	$(3.0 \pm 0.8) \times 10^{-3}$		DESIG=11
Γ_4	ΛK^0_S	$(3.2 \pm 0.6) \times 10^{-3}$		DESIG=6
Γ_5	$\Lambda K^- \pi^+$	(1.45 ± 0.28) %		DESIG=12
Γ_6	$\Lambda \overline{K}^*(892)^0$	$(2.6 \pm 0.6) \times 10^{-3}$		DESIG=19
Γ_7	$\Lambda \overline{K}^0 \pi^+ \pi^-$	seen		DESIG=8
Γ_8	$\Lambda K^- \pi^+ \pi^+ \pi^-$	seen		DESIG=9
Γ_9	$\Sigma^0 K^0_S$	$(5.4 \pm 1.4) \times 10^{-4}$		DESIG=25
Γ_{10}	$\Sigma^+ K^-$	$(1.8 \pm 0.4) \times 10^{-3}$		DESIG=26
Γ_{11}	$\Sigma^0 \overline{K}^*(892)^0$	$(9.9 \pm 1.9) \times 10^{-3}$		DESIG=20
Γ_{12}	$\Sigma^+ K^*(892)^-$	$(4.9 \pm 1.3) \times 10^{-3}$		DESIG=21
Γ_{13}	$\Xi^- \pi^+$	(1.43 ± 0.27) %		DESIG=1
Γ_{14}	$\Xi^- \pi^+ \pi^+ \pi^-$	(4.8 ± 2.3) %		DESIG=3
Γ_{15}	$\Xi^0 \pi^0$	$(6.9 \pm 1.4) \times 10^{-3}$		DESIG=30
Γ_{16}	$\Xi^0 \eta$	$(1.6 \pm 0.4) \times 10^{-3}$		DESIG=31
Γ_{17}	$\Xi^0 \eta'$	$(1.1 \pm 0.4) \times 10^{-3}$		DESIG=32
Γ_{18}	$\Xi^0 K^+ K^-$			DESIG=22
Γ_{19}	$\Xi^0 \phi, \ \phi \to K^+ K^-$	$(5.2 \pm 1.2) \times 10^{-4}$		DESIG=23
Γ_{20}	$\Xi^0 K^+ K^-$ nonresonant	$(5.6 \pm 1.2) \times 10^{-4}$		DESIG=24
Γ_{21}	$\Omega^- K^+$	$(4.2 \pm 0.9) \times 10^{-3}$		DESIG=4
Γ_{22}	$\Xi^- e^+ \nu_e$	(1.05 ± 0.20) %		DESIG=7
Γ_{23}	$\Xi^- \mu^+ \nu_\mu$	(1.01 ± 0.21) %		DESIG=18
Γ_{24}	$\Xi^0 \gamma$	$< 1.7 \times 10^{-4}$	90%	DESIG=27
Γ_{25}	$\Xi^0 \mu^+ \mu^-$	$< 6 \times 10^{-5}$	90%	DESIG=28
Γ_{26}	$\Xi^0 e^+ e^-$	$< 1.0 \times 10^{-4}$	90%	DESIG=29
	Cabibbo-suppressed decays			NODE=S048;CLUMP=B
Γ_{27}	$\Lambda_c^+ \pi^-$	$(5.5 \pm 1.1) \times 10^{-3}$		DESIG=17
Γ_{28}	$\Xi^- K^+$	$(3.9 \pm 1.1) \times 10^{-4}$		DESIG=13
Γ_{29}	$\Lambda K^+ K^-$ (no ϕ)	$(4.1 \pm 1.3) \times 10^{-4}$		DESIG=14
Γ_{30}	$\Lambda \phi$	$(4.9 \pm 1.3) \times 10^{-4}$		DESIG=15

FIT INFORMATION

An overall fit to 7 branching ratios uses 8 measurements to determine 4 parameters. The overall fit has a $\chi^2 = 1.4$ for 4 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, $x_i \equiv \Gamma_i/\Gamma_{total}$.

x_5	64		
x_{13}	86	74	
x_{27}	64	55	75
	x_1	x_5	x_{13}

Ξ_c^0 BRANCHING RATIOS

NODE=S048220

Cabibbo-favored (S = −2) decays

NODE=S048240

$\Gamma(p K^- K^- \pi^+)/\Gamma_{total}$ **Γ_1/Γ**

NODE=S048R05
NODE=S048R05

VALUE (%)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
0.49±0.10 OUR FIT					
0.58±0.23±0.05	17 ± 5	LI	19A	BELL	$e^+ e^-$ at $\Upsilon(4S)$

$\Gamma(pK^-K^-\pi^+)/\Gamma(\Xi^-\pi^+)$ — Γ_1/Γ_{13}

NODE=S048R10

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.339±0.035 OUR FIT					
0.34 ±0.04 OUR AVERAGE					
0.33 ±0.03 ±0.03	1908 ± 62	LESIAK	05	BELL	e^+e^-, $\Upsilon(4S)$
0.35 ±0.06 ±0.03	148 ± 18	DANKO	04	CLEO	e^+e^-

$\Gamma(pK^-\overline{K}^*(892)^0,\ \overline{K}^{*0}\to K^-\pi^+)/\Gamma(\Xi^-\pi^+)$ — Γ_2/Γ_{13}

NODE=S048R11

VALUE	DOCUMENT ID		TECN	COMMENT
0.14±0.03±0.01	DANKO	04	CLEO	e^+e^-

$\Gamma(pK^-K^-\pi^+\,(\text{no }\overline{K}^{*0}))/\Gamma(\Xi^-\pi^+)$ — Γ_3/Γ_{13}

NODE=S048R12

VALUE	DOCUMENT ID		TECN	COMMENT
0.21±0.04±0.02	DANKO	04	CLEO	e^+e^-

$\Gamma(\Lambda K^0_S)/\Gamma(\Xi^-\pi^+)$ — Γ_4/Γ_{13}

NODE=S048R6

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.225±0.013 OUR AVERAGE					
0.229±0.008±0.012	5.6k	LI	21F	BELL	e^+e^- at Υ(nS)
0.21 ±0.02 ±0.02	465 ± 37	LESIAK	05	BELL	e^+e^-, $\Upsilon(4S)$

$\Gamma(\Lambda K^-\pi^+)/\Gamma_{\text{total}}$ — Γ_5/Γ

NODE=S048R04

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
1.45±0.28 OUR FIT					
1.17±0.37±0.09	24 ± 6	LI	19A	BELL	e^+e^- at $\Upsilon(4S)$

$\Gamma(\Lambda K^-\pi^+)/\Gamma(\Xi^-\pi^+)$ — Γ_5/Γ_{13}

NODE=S048R13

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
1.02±0.14 OUR FIT Error includes scale factor of 1.1.					
1.07±0.12±0.07	2979 ± 211	LESIAK	05	BELL	e^+e^-, $\Upsilon(4S)$

$\Gamma(\Lambda\overline{K}^*(892)^0)/\Gamma(\Xi^-\pi^+)$ — Γ_6/Γ_{13}

NODE=S048R08

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.18±0.02±0.01	4k	JIA	21	BELL	e^+e^- at Υ(nS)

$\Gamma(\Lambda\overline{K}^0\pi^+\pi^-)/\Gamma_{\text{total}}$ — Γ_7/Γ

NODE=S048R8

VALUE	DOCUMENT ID		TECN	COMMENT
seen	FRABETTI	98B	E687	γ Be, $\overline{E}_\gamma$ = 220 GeV

$\Gamma(\Lambda K^-\pi^+\pi^+\pi^-)/\Gamma_{\text{total}}$ — Γ_8/Γ

NODE=S048R9

VALUE	DOCUMENT ID		TECN	COMMENT
seen	FRABETTI	98B	E687	γ Be, $\overline{E}_\gamma$ = 220 GeV

$\Gamma(\Sigma^0K^0_S)/\Gamma(\Xi^-\pi^+)$ — Γ_9/Γ_{13}

NODE=S048R18

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
3.8±0.6±0.4	279	LI	21F	BELL	e^+e^- at Υ(nS)

$\Gamma(\Sigma^+K^-)/\Gamma(\Xi^-\pi^+)$ — Γ_{10}/Γ_{13}

NODE=S048R19

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
12.3±0.7±1.0	889	LI	21F	BELL	e^+e^- at Υ(nS)

$\Gamma(\Sigma^0\overline{K}^*(892)^0)/\Gamma(\Xi^-\pi^+)$ — Γ_{11}/Γ_{13}

NODE=S048R09

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.69±0.03±0.03	6.3k	JIA	21	BELL	e^+e^- at Υ(nS)

$\Gamma(\Sigma^+K^*(892)^-)/\Gamma(\Xi^-\pi^+)$ — Γ_{12}/Γ_{13}

NODE=S048R14

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.34±0.06±0.02	373	JIA	21	BELL	e^+e^- at Υ(nS)

$\Gamma(\Xi^-\pi^+)/\Gamma_{\text{total}}$ — Γ_{13}/Γ

NODE=S048R00

VALUE (%)	EVTS	DOCUMENT ID		TECN	COMMENT
1.43±0.27 OUR FIT					
1.80±0.50±0.14	45 ± 7	LI	19A	BELL	e^+e^- at $\Upsilon(4S)$

$\Gamma(\Xi^-\pi^+)/\Gamma(\Xi^-\pi^+\pi^+\pi^-)$ — Γ_{13}/Γ_{14}

NODE=S048R1

VALUE	DOCUMENT ID		TECN	COMMENT
0.30±0.12±0.05	ALBRECHT	90F	ARG	e^+e^- at $\Upsilon(4S)$

$\Gamma(\Omega^- K^+)/\Gamma(\Xi^-\pi^+)$ — Γ_{21}/Γ_{13}

NODE=S048R2

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.294±0.018±0.016	650	AUBERT,B	05M	BABR	$e^+e^- \approx \Upsilon(4S)$

$\Gamma(\Xi^0\phi,\ \phi\to K^+K^-)/\Gamma(\Xi^-\pi^+)$ — Γ_{19}/Γ_{13}

NODE=S048R15

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.036±0.004±0.002	311	[1] MCNEIL	21	BELL	e^+e^- at Υ(nS)

[1] MCNEIL 21 assumes an azimuthally symmetric amplitude model to recover resonant and nonresonant contributions to $\Xi_c^0 \to \Xi^0 K^+ K^-$.

NODE=S048R15;LINKAGE=A

$\Gamma(\Xi^0\pi^0)/\Gamma(\Xi^-\pi^+)$ — Γ_{15}/Γ_{13}

NODE=S048R24

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.48±0.02±0.03	2.2k	[1] ADACHI	24S	BEL2	e^+e^- at $\sim\Upsilon$(nS)

[1] Analysis of Belle and Belle II data samples.

NODE=S048R24;LINKAGE=A

$\Gamma(\Xi^0\eta)/\Gamma(\Xi^-\pi^+)$ — Γ_{16}/Γ_{13}

NODE=S048R25

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.11±0.01±0.01	0.14k	[1] ADACHI	24S	BEL2	e^+e^- at $\sim\Upsilon$(nS)

[1] Analysis of Belle and Belle II data samples.

NODE=S048R25;LINKAGE=A

$\Gamma(\Xi^0\eta')/\Gamma(\Xi^-\pi^+)$ — Γ_{17}/Γ_{13}

NODE=S048R26

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.08±0.02±0.01	31	[1] ADACHI	24S	BEL2	e^+e^- at $\sim\Upsilon$(nS)

[1] Analysis of Belle and Belle II data samples.

NODE=S048R26;LINKAGE=A

$\Gamma(\Xi^0 K^+K^-$ nonresonant$)/\Gamma(\Xi^-\pi^+)$ — Γ_{20}/Γ_{13}

NODE=S048R16

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.039±0.004±0.002	311	[1] MCNEIL	21	BELL	e^+e^- at Υ(nS)

[1] MCNEIL 21 assumes an azimuthally symmetric amplitude model to recover resonant and nonresonant contributions to $\Xi_c^0 \to \Xi^0 K^+ K^-$.

NODE=S048R16;LINKAGE=A

$\Gamma(\Xi^- e^+\nu_e)/\Gamma(\Xi^-\pi^+)$ — Γ_{22}/Γ_{13}

NODE=S048R7

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.730±0.021±0.039		[1] LI	21C	BELL	e^+e^- at 10.52, 10.58 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1.38 ±0.14 ±0.22		ACHARYA	21A	ALCE	pp at 13 TeV
3.1 ±1.0 $^{+0.3}_{-0.5}$	54	ALEXANDER	95B	CLE2	$e^+e^- \approx \Upsilon(4S)$
0.96 ±0.43 ±0.18	18	[2] ALBRECHT	93B	ARG	$e^+e^- \approx 10.4$ GeV

[1] LI 21C measures ratio $B(\Xi_c^0 \to \Xi^- e^+\nu_e)$ / $B(\Xi_c^0 \to \Xi^-\mu^+\nu_\mu) = 1.03 \pm 0.05 \pm 0.07$.

NODE=S048R7;LINKAGE=B

[2] This ALBRECHT 93B value is the average of the $(\Xi^- e^+$ anything$)/\Xi^-\pi^+$ and $(\Xi^-\mu^+$ anything$)/\Xi^-\pi^+$ ratios. Here we average it with the $\Xi^- e^+\nu_e/\Xi^-\pi^+$ ratio.

NODE=S048R7;LINKAGE=A

$\Gamma(\Xi^- e^+\nu_e)/\Gamma(\Xi^-\mu^+\nu_\mu)$ — Γ_{22}/Γ_{23}

NODE=S048R17

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1.03±0.05±0.07	[1] LI	21C	BELL	e^+e^- at 10.52, 10.58 GeV

[1] LI 21C value is not independent from other quoted measurements.

NODE=S048R17;LINKAGE=A

$\Gamma(\Xi^-\mu^+\nu_\mu)/\Gamma(\Xi^-\pi^+)$ — Γ_{23}/Γ_{13}

NODE=S048R07

VALUE	DOCUMENT ID		TECN	COMMENT
0.708±0.033±0.056	[1] LI	21C	BELL	e^+e^- at 10.52, 10.58 GeV

[1] LI 21C measures ratio $B(\Xi_c^0 \to \Xi^- e^+\nu_e)$ / $B(\Xi_c^0 \to \Xi^-\mu^+\nu_\mu) = 1.03 \pm 0.05 \pm 0.07$.

NODE=S048R07;LINKAGE=A

$\Gamma(\Xi^0\gamma)/\Gamma(\Xi^-\pi^+)$ — Γ_{24}/Γ_{13}

NODE=S048R21

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<1.2 \times 10^{-2}$	90	LI	23	BELL	$e^+e^- \to \Upsilon$(nS)

$\Gamma(\Xi^0\mu^+\mu^-)/\Gamma(\Xi^-\pi^+)$ — Γ_{25}/Γ_{13}

NODE=S048R22

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<4.3 \times 10^{-3}$	90	CUI	24	BELL	980fb^{-1}, e^+e^- at $Y(4S)$

$\Gamma(\Xi^0 e^+ e^-)/\Gamma(\Xi^- \pi^+)$ — Γ_{26}/Γ_{13}

NODE=S048R23

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<6.7 × 10^{-3}	90	CUI	24	BELL	980fb^{-1}, $e^+ e^-$ at $\Upsilon(4S)$

Cabibbo-suppressed decays

NODE=S048250

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

NODE=S048R06

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
5.5±1.1 OUR FIT					
5.5±0.2±1.8	6.3k	[1] AAIJ	20AH	LHCB	pp at 13 TeV

[1] AAIJ 20AH extracts B($\Xi_c^0 \to \Lambda_c^+ \pi^-$) using two different normalization modes: $\Lambda_c^+ \to pK^- \pi^+$ and $\Xi_c^+ \to pK^- \pi^+$. The mean value of both results, taking their correlations into account, is presented as the final result. The measurement assumes production fraction ratios $f_{\Xi_c^0}/f_{\Lambda_c^+} = (9.7 \pm 0.9 \pm 3.1) \times 10^{-2}$ (from AAIJ 19AB plus heavy quark symmetry arguments) as well as $f_{\Xi_c^0}/f_{\Xi_c^+} = 1.00 \pm 0.01$. It further uses the inputs B($\Lambda_c^+ \to pK^- \pi^+$) = $(6.23 \pm 0.33) \times 10^{-2}$ and B($\Xi_c^+ \to pK^- \pi^+$) = $(4.5 \pm 2.1 \pm 0.7) \times 10^{-3}$ (from LI 19C). Its correlation with B($\Xi_c^+ \to pK^- \pi^+$), as measured in AAIJ 20AH, is 0.414.

NODE=S048R06;LINKAGE=A

$\Gamma(\Lambda_c^+ \pi^-)/\Gamma(\Xi^- \pi^+)$ — Γ_{27}/Γ_{13}

NODE=S048R20

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.38±0.05 OUR FIT					
0.38±0.04±0.04	1468	[1] TANG	23	BELL	$e^+ e^- \to \Upsilon(nS)$

[1] TANG 23 reports fitted masses $m_{\Lambda_c^+} = 2286.55 \pm 0.03$ MeV and $m_{\Xi_c^0} = 2470.43 \pm 0.06$ MeV.

NODE=S048R20;LINKAGE=A

$\Gamma(\Xi^- K^+)/\Gamma(\Xi^- \pi^+)$ — Γ_{28}/Γ_{13}

NODE=S048R01

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
2.75±0.51±0.25	314 ± 58	CHISTOV	13	BELL	$e^+ e^- \approx \Upsilon(4S)$

$\Gamma(\Lambda K^+ K^- (\text{no } \phi))/\Gamma(\Xi^- \pi^+)$ — Γ_{29}/Γ_{13}

NODE=S048R02

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
2.86±0.61±0.37	510 ± 110	CHISTOV	13	BELL	$e^+ e^- \approx \Upsilon(4S)$

$\Gamma(\Lambda \phi)/\Gamma(\Xi^- \pi^+)$ — Γ_{30}/Γ_{13}

NODE=S048R03

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
3.43±0.58±0.32	316 ± 54	CHISTOV	13	BELL	$e^+ e^- \approx \Upsilon(4S)$

Ξ_c^0 DECAY PARAMETERS

NODE=S048225

See the note on "Baryon Decay Parameters" in the neutron Listings.

NODE=S048225

α FOR $\Xi_c^0 \to \Xi^- \pi^+$

NODE=S048A

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
−0.64±0.05±0.01		LI	21C	BELL	$e^+ e^-$ at 10.52, 10.58 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$-0.56 \pm 0.39^{+0.10}_{-0.09}$	138	CHAN	01	CLE2	$e^+ e^- \approx \Upsilon(4S)$

α FOR $\overline{\Xi}_c^0 \to \overline{\Xi}^+ \pi^-$

NODE=S048A01

VALUE	DOCUMENT ID		TECN	COMMENT
0.61±0.05±0.01	LI	21C	BELL	$e^+ e^-$ at 10.52, 10.58 GeV

α FOR $\Xi_c^0 \to \Lambda \overline{K}^*(892)^0$

NODE=S048A02

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.15±0.22±0.04	4k	[1] JIA	21	BELL	$e^+ e^-$ at $\Upsilon(nS)$

[1] JIA 21 measures $\alpha(\Xi_c^0 \to \Lambda \overline{K}^*(892)^0)\ \alpha(\Lambda \to p\pi^-) = 0.115 \pm 0.164 \pm 0.031$, and uses $\alpha(\Lambda \to p\pi^-) = 0.747 \pm 0.010$.

NODE=S048A02;LINKAGE=A

α FOR $\Xi_c^0 \to \Sigma^+ K^*(892)^-$

NODE=S048A03

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
−0.52±0.30±0.02	373	[1] JIA	21	BELL	$e^+ e^-$ at $\Upsilon(nS)$

[1] JIA 21 measures $\alpha(\Xi_c^0 \to \Sigma^+ \overline{K}^*(892)^-)\ \alpha(\Sigma^+ \to p\pi^0) = 0.514 \pm 0.295 \pm 0.012$, and uses $\alpha(\Sigma^+ \to p\pi^0) = -0.980 \pm 0.017$.

NODE=S048A03;LINKAGE=A

NODE=S048A04

α FOR $\Xi_c^0 \to \Xi^0 \pi^0$

NODE=S048A04

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
−0.90±0.15±0.23	2.2k	[1] ADACHI	24S	BEL2	$e^+ e^-$ at $\sim \Upsilon(nS)$

[1] Analysis of Belle and Belle II data samples.

NODE=S048A04;LINKAGE=A

Ξ_c^0 Tests of Baryon Number Violation

NODE=S048230

τ_{mix}, $\Xi_c^0 - \overline{\Xi}_c^0$ oscillation period

NODE=S048B00

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VALUE (10^{-12} s)	DOCUMENT ID		TECN	COMMENT
>1.3	[1] GU	24	BELL	$e^+ e^- \to \Upsilon(4S)$

[1] Search for baryon-number violating decay $B^- \to \overline{\Xi}_c^0 \overline{\Lambda}_c^-$, which can be interpreted as a search for $B^- \to \Xi_c^0 \overline{\Lambda}_c^-$ followed by $\Xi_c^0 - \overline{\Xi}_c^0$ baryon-number violating oscillation, from which a bound on the oscillation period τ_{mix} can be inferred, assuming no direct $B^- \to \overline{\Xi}_c^0 \overline{\Lambda}_c^-$ decay.

NODE=S048B00;LINKAGE=A

Ξ_c^0 REFERENCES

NODE=S048

ADACHI	24S	JHEP 2410 045	I. Adachi *et al.*	(BELLE and BELLE II Collab.)	REFID=63125
CUI	24	PR D109 052003	J.X.Cui *et al.*	(BELLE Collab.)	REFID=62779
GU	24	PRL 133 071802	T. Gu *et al.*	(BELLE Collab.)	REFID=62744
LI	23	PR D107 032001	Y. Li *et al.*	(BELLE Collab.)	REFID=62078
TANG	23	PR D107 032005	S.S. Tang *et al.*	(BELLE Collab.)	REFID=62081
AAIJ	22Y	SCIB 67 479	R. Aaij *et al.*	(LHCb Collab.)	REFID=62186
ACHARYA	21A	PRL 127 272001	S. Acharya *et al.*	(ALICE Collab.)	REFID=61477
JIA	21	JHEP 2106 160	S. Jia *et al.*	(BELLE Collab.)	REFID=61126
LI	21C	PRL 127 121803	Y.B. Li *et al.*	(BELLE Collab.)	REFID=61420
LI	21F	PR D105 L011102	Y. Li *et al.*	(BELLE Collab.)	REFID=61485
MCNEIL	21	PR D103 112002	J.T. McNeil *et al.*	(BELLE Collab.)	REFID=61116
AAIJ	20AH	PR D102 071101	R. Aaij *et al.*	(LHCb Collab.)	REFID=60723
PDG	20	PTEP 2020 083C01	P.A. Zyla *et al.*	(PDG Collab.)	REFID=60676
AAIJ	19AB	PR D99 052006	R. Aaij *et al.*	(LHCb Collab.)	REFID=59843
AAIJ	19AG	PR D100 032001	R. Aaij *et al.*	(LHCb Collab.)	REFID=59957
LI	19A	PRL 122 082001	Y.B. Li *et al.*	(BELLE Collab.)	REFID=59595
LI	19C	PR D100 031101	Y.B. Li *et al.*	(BELLE Collab.)	REFID=59906
AALTONEN	14B	PR D89 072014	T. Aaltonen *et al.*	(CDF Collab.)	REFID=55804
CHISTOV	13	PR D88 071103	R. Chistov *et al.*	(BELLE Collab.)	REFID=55452
AUBERT,B	05M	PRL 95 142003	B. Aubert *et al.*	(BABAR Collab.)	REFID=50831
LESIAK	05	PL B605 237	T. Lesiak *et al.*	(BELLE Collab.)	REFID=50383
Also		PL B617 198 (errat.)	T. Lesiak *et al.*	(BELLE Collab.)	REFID=50652
DANKO	04	PR D69 052004	I. Danko *et al.*	(CLEO Collab.)	REFID=49960
LINK	02H	PL B541 211	J.M. Link *et al.*	(FNAL FOCUS Collab.)	REFID=48775
CHAN	01	PR D63 111102	S. Chan *et al.*	(CLEO Collab.)	REFID=48150
FRABETTI	98B	PL B426 403	P.L. Frabetti *et al.*	(FNAL E687 Collab.)	REFID=46086
ALEXANDER	95B	PRL 74 3113	J. Alexander *et al.*	(CLEO Collab.)	REFID=44197
Also		PRL 75 4155 (errat.)	J. Alexander *et al.*	(CLEO Collab.)	REFID=44579
ALBRECHT	93B	PL B303 368	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=43298
FRABETTI	93C	PRL 70 2058	P.L. Frabetti *et al.*	(FNAL E687 Collab.)	REFID=43240
HENDERSON	92B	PL B283 161	S. Henderson *et al.*	(CLEO Collab.)	REFID=42050
ALBRECHT	90F	PL B247 121	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=41339
BARLAG	90	PL B236 495	S. Barlag *et al.*	(ACCMOR Collab.)	REFID=40999
ALAM	89	PL B226 401	M.S. Alam *et al.*	(CLEO Collab.)	REFID=40745
AVERY	89	PRL 62 863	P. Avery *et al.*	(CLEO Collab.)	REFID=40720