



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

Neither J or P has actually been measured.

Ξ_c^0 MASS

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

| VALUE (MeV) | EVTS | DOCUMENT ID | TECN | COMMENT |
|-------------------------------|------|-------------|------|-------------------------------------|
| 2470.44 ± 0.28 OUR FIT | | | | Error includes scale factor of 1.2. |

2470.99^{+0.30}_{-0.50} OUR AVERAGE

| | | | | | |
|--|------|---------------------|-----|------|---|
| 2470.85 ± 0.24 ± 0.55 | 3.4k | AALTONEN | 14B | CDF | $p\bar{p}$ at 1.96 TeV |
| 2471.0 ± 0.3 ^{+0.2} _{-1.4} | 8.6k | ¹ LESIAK | 05 | BELL | e^+e^- , $\Upsilon(4S)$ |
| 2470.0 ± 2.8 ± 2.6 | 85 | FRABETTI | 98B | E687 | γ Be, $\bar{E}_\gamma = 220$ GeV |
| 2469 ± 2 ± 3 | 9 | HENDERSON | 92B | CLEO | $\Omega^- K^+$ |
| 2472.1 ± 2.7 ± 1.6 | 54 | ALBRECHT | 90F | ARG | e^+e^- at $\Upsilon(4S)$ |
| 2473.3 ± 1.9 ± 1.2 | 4 | BARLAG | 90 | ACCM | $\pi^- (K^-)$ Cu 230 GeV |
| 2472 ± 3 ± 4 | 19 | ALAM | 89 | CLEO | e^+e^- 10.6 GeV |

• • • 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.

² The FRABETTI 93C mass is well below the other measurements.

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

| VALUE (MeV) | EVTS | DOCUMENT ID | TECN | COMMENT |
|----------------------------|------|-------------|------|-------------------------------------|
| 2.72 ± 0.23 OUR FIT | | | | Error includes scale factor of 1.1. |

2.91 ± 0.26 OUR AVERAGE

| | | | | | |
|--------------------|----------|----------|-----|------|---|
| 2.85 ± 0.30 ± 0.04 | 5.1/3.4k | AALTONEN | 14B | CDF | $p\bar{p}$ at 1.96 TeV |
| 2.9 ± 0.5 | | LESIAK | 05 | BELL | e^+e^- , $\Upsilon(4S)$ |
| 7.0 ± 4.5 ± 2.2 | | ALBRECHT | 90F | ARG | e^+e^- at $\Upsilon(4S)$ |
| 6.8 ± 3.3 ± 0.5 | | BARLAG | 90 | ACCM | $\pi^- (K^-)$ Cu 230 GeV |
| 5 ± 4 ± 1 | | ALAM | 89 | CLEO | $\Xi_c^0 \rightarrow \Xi^- \pi^+$, $\Xi_c^+ \rightarrow \Xi^- \pi^+ \pi^+$ |

Ξ_c^0 MEAN LIFE

| 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 | $pp \rightarrow \Xi_c^0 + X$, $\Xi_c^0 \rightarrow pK^- K^- \pi^+$ |
| 153.4 ± 2.4 ± 0.7 | 22k | ^{2,3} AAIJ | 19AG | LHCB | $\Xi_b^- \rightarrow \Xi_c^0 \mu^- \bar{\nu}_\mu + X$, $\Xi_c^0 \rightarrow pK^- K^- \pi^+$ |

| | | | | | | |
|-----|----------------|---------|-----|----------|----------|---|
| 118 | $+14$ -12 | ± 5 | 110 | LINK | 02H FOCS | γ nucleus, ≈ 180 GeV |
| 101 | $+25$ -17 | ± 5 | 42 | FRABETTI | 93C E687 | γ Be, $\bar{E}_\gamma = 220$ GeV |
| 82 | $+59$ -30 | | 4 | BARLAG | 90 ACCM | π^- (K^-) Cu 230 GeV |

¹ Measured in Ξ_c^0 produced promptly in pp collisions, using $D^0 \rightarrow K^+ K^- \pi^+ \pi^-$ 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.

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

³ Measured in Ξ_c^0 produced in semileptonic Ξ_b^- decays.

Ξ_c^0 DECAY MODES

| Mode | Fraction (Γ_i/Γ) | Confidence level |
|--|--------------------------------|------------------|
| Cabibbo-favored decays | | |
| Γ_1 $pK^- K^- \pi^+$ | $(4.9 \pm 1.0) \times 10^{-3}$ | |
| Γ_2 $pK^- \bar{K}^*(892)^0, \bar{K}^{*0} \rightarrow K^- \pi^+$ | $(2.0 \pm 0.6) \times 10^{-3}$ | |
| Γ_3 $pK^- K^- \pi^+$ (no \bar{K}^{*0}) | $(3.0 \pm 0.8) \times 10^{-3}$ | |
| Γ_4 ΛK_S^0 | $(3.2 \pm 0.6) \times 10^{-3}$ | |
| Γ_5 $\Lambda K^- \pi^+$ | $(1.45 \pm 0.28) \%$ | |
| Γ_6 $\Lambda \bar{K}^*(892)^0$ | $(2.6 \pm 0.6) \times 10^{-3}$ | |
| Γ_7 $\Lambda \bar{K}^0 \pi^+ \pi^-$ | seen | |
| Γ_8 $\Lambda K^- \pi^+ \pi^+ \pi^-$ | seen | |
| Γ_9 $\Sigma^0 K_S^0$ | $(5.4 \pm 1.4) \times 10^{-4}$ | |
| Γ_{10} $\Sigma^+ K^-$ | $(1.8 \pm 0.4) \times 10^{-3}$ | |
| Γ_{11} $\Sigma^0 \bar{K}^*(892)^0$ | $(9.9 \pm 1.9) \times 10^{-3}$ | |
| Γ_{12} $\Sigma^+ K^*(892)^-$ | $(4.9 \pm 1.3) \times 10^{-3}$ | |
| Γ_{13} $\Xi^- \pi^+$ | $(1.43 \pm 0.27) \%$ | |
| Γ_{14} $\Xi^- \pi^+ \pi^+ \pi^-$ | $(4.8 \pm 2.3) \%$ | |
| Γ_{15} $\Xi^0 K^+ K^-$ | | |
| Γ_{16} $\Xi^0 \phi, \phi \rightarrow K^+ K^-$ | $(5.2 \pm 1.2) \times 10^{-4}$ | |
| Γ_{17} $\Xi^0 K^+ K^-$ nonresonant | $(5.6 \pm 1.2) \times 10^{-4}$ | |
| Γ_{18} $\Omega^- K^+$ | $(4.2 \pm 0.9) \times 10^{-3}$ | |
| Γ_{19} $\Xi^- e^+ \nu_e$ | $(1.05 \pm 0.20) \%$ | |
| Γ_{20} $\Xi^- \mu^+ \nu_\mu$ | $(1.01 \pm 0.21) \%$ | |
| Γ_{21} $\Xi^0 \gamma$ | $< 1.7 \times 10^{-4}$ | 90% |
| Cabibbo-suppressed decays | | |
| Γ_{22} $\Lambda_c^+ \pi^-$ | $(5.5 \pm 1.1) \times 10^{-3}$ | |
| Γ_{23} $\Xi^- K^+$ | $(3.9 \pm 1.1) \times 10^{-4}$ | |
| Γ_{24} $\Lambda K^+ K^-$ (no ϕ) | $(4.1 \pm 1.3) \times 10^{-4}$ | |

$\Gamma_{25} \Lambda\phi$ $(4.9 \pm 1.3) \times 10^{-4}$ **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 $\langle \delta x_i \delta x_j \rangle / (\delta x_i \delta x_j)$, in percent, from the fit to the branching fractions, $x_i \equiv \Gamma_i / \Gamma_{\text{total}}$.

| | | | |
|----------|-------|-------|----------|
| x_5 | 64 | | |
| x_{13} | 86 | 74 | |
| x_{22} | 64 | 55 | 75 |
| | x_1 | x_5 | x_{13} |

 Ξ_c^0 BRANCHING RATIOS

———— Cabibbo-favored ($S = -2$) decays ————

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

| 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 $\Upsilon(4S)$ |

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

| 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 $e^+ e^-$ |

$\Gamma(\rho K^- \bar{K}^*(892)^0, \bar{K}^{*0} \rightarrow K^- \pi^+) / \Gamma(\Xi^- \pi^+)$ Γ_2 / Γ_{13}

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

$\Gamma(\rho K^- K^- \pi^+ (\text{no } \bar{K}^{*0})) / \Gamma(\Xi^- \pi^+)$ Γ_3 / Γ_{13}

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

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

| 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 $\Upsilon(nS)$ |
| 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

| 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} |
| <u>VALUE</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| 1.02±0.14 OUR FIT | Error includes scale factor of 1.1. | | | | |
| 1.07±0.12±0.07 | 2979 ± 211 | LESLIAK | 05 | BELL | $e^+ e^-$, $\Upsilon(4S)$ |
| $\Gamma(\Lambda \bar{K}^*(892)^0)/\Gamma(\Xi^- \pi^+)$ | | | | | Γ_6/Γ_{13} |
| <u>VALUE</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| 0.18±0.02±0.01 | 4k | JIA | 21 | BELL | $e^+ e^-$ at $\Upsilon(nS)$ |
| $\Gamma(\Lambda \bar{K}^0 \pi^+ \pi^-)/\Gamma_{\text{total}}$ | | | | | Γ_7/Γ |
| <u>VALUE</u> | | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| seen | | FRABETTI | 98B | E687 | γ Be, $\bar{E}_\gamma = 220$ GeV |
| $\Gamma(\Lambda K^- \pi^+ \pi^+ \pi^-)/\Gamma_{\text{total}}$ | | | | | Γ_8/Γ |
| <u>VALUE</u> | | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| seen | | FRABETTI | 98B | E687 | γ Be, $\bar{E}_\gamma = 220$ GeV |
| $\Gamma(\Sigma^0 K_S^0)/\Gamma(\Xi^- \pi^+)$ | | | | | Γ_9/Γ_{13} |
| <u>VALUE (units 10^{-2})</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| 3.8±0.6±0.4 | 279 | LI | 21F | BELL | $e^+ e^-$ at $\Upsilon(nS)$ |
| $\Gamma(\Sigma^+ K^-)/\Gamma(\Xi^- \pi^+)$ | | | | | Γ_{10}/Γ_{13} |
| <u>VALUE (units 10^{-2})</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| 12.3±0.7±1.0 | 889 | LI | 21F | BELL | $e^+ e^-$ at $\Upsilon(nS)$ |
| $\Gamma(\Sigma^0 \bar{K}^*(892)^0)/\Gamma(\Xi^- \pi^+)$ | | | | | Γ_{11}/Γ_{13} |
| <u>VALUE</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| 0.69±0.03±0.03 | 6.3k | JIA | 21 | BELL | $e^+ e^-$ at $\Upsilon(nS)$ |
| $\Gamma(\Sigma^+ K^*(892)^-)/\Gamma(\Xi^- \pi^+)$ | | | | | Γ_{12}/Γ_{13} |
| <u>VALUE</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| 0.34±0.06±0.02 | 373 | JIA | 21 | BELL | $e^+ e^-$ at $\Upsilon(nS)$ |
| $\Gamma(\Xi^- \pi^+)/\Gamma_{\text{total}}$ | | | | | Γ_{13}/Γ |
| <u>VALUE (%)</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| 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} |
| <u>VALUE</u> | | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| 0.30±0.12±0.05 | | ALBRECHT | 90F | ARG | $e^+ e^-$ at $\Upsilon(4S)$ |
| $\Gamma(\Omega^- K^+)/\Gamma(\Xi^- \pi^+)$ | | | | | Γ_{18}/Γ_{13} |
| <u>VALUE</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| 0.294±0.018±0.016 | 650 | AUBERT,B | 05M | BABR | $e^+ e^- \approx \Upsilon(4S)$ |
| $\Gamma(\Xi^0 \phi, \phi \rightarrow K^+ K^-)/\Gamma(\Xi^- \pi^+)$ | | | | | Γ_{16}/Γ_{13} |
| <u>VALUE</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> | |
| 0.036±0.004±0.002 | 311 | ¹ MCNEIL | 21 | BELL | $e^+ e^-$ at $\Upsilon(nS)$ |

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

$\Gamma(\Xi_c^0 K^+ K^- \text{ nonresonant})/\Gamma(\Xi^- \pi^+)$ Γ_{17}/Γ_{13}

| VALUE | EVTS | DOCUMENT ID | TECN | COMMENT |
|--------------------------|------|------------------------|------|-----------------------------|
| 0.039±0.004±0.002 | 311 | ¹ MCNEIL 21 | BELL | $e^+ e^-$ at $\Upsilon(nS)$ |

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

$\Gamma(\Xi^- e^+ \nu_e)/\Gamma(\Xi^- \pi^+)$ Γ_{19}/Γ_{13}

| 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 $\begin{smallmatrix} +0.3 \\ -0.5 \end{smallmatrix}$ 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

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

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

$\Gamma(\Xi^- e^+ \nu_e)/\Gamma(\Xi^- \mu^+ \nu_\mu)$ Γ_{19}/Γ_{20}

| VALUE | DOCUMENT ID | TECN | COMMENT |
|-----------------------|---------------------|------|-------------------------------|
| 1.03±0.05±0.07 | ¹ LI 21C | BELL | $e^+ e^-$ at 10.52, 10.58 GeV |

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

1.03±0.05±0.07 ¹LI 21C BELL $e^+ e^-$ at 10.52, 10.58 GeV

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

$\Gamma(\Xi^- \mu^+ \nu_\mu)/\Gamma(\Xi^- \pi^+)$ Γ_{20}/Γ_{13}

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

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

$\Gamma(\Xi_c^0 \gamma)/\Gamma(\Xi^- \pi^+)$ Γ_{21}/Γ_{13}

| VALUE | CL% | DOCUMENT ID | TECN | COMMENT |
|----------------------------------|-----|-------------|------|------------------------------------|
| <1.2 × 10⁻² | 90 | LI 23 | BELL | $e^+ e^- \rightarrow \Upsilon(nS)$ |

———— Cabibbo-suppressed decays ————

$\Gamma(\Lambda_c^+ \pi^-)/\Gamma_{\text{total}}$ Γ_{22}/Γ

| 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 |

¹AAIJ 20AH extracts $B(\Xi_c^0 \rightarrow \Lambda_c^+ \pi^-)$ using two different normalization modes: $\Lambda_c^+ \rightarrow pK^- \pi^+$ and $\Xi_c^+ \rightarrow pK^- \pi^+$. 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 $B(\Lambda_c^+ \rightarrow pK^-\pi^+) = (6.23 \pm 0.33) \times 10^{-2}$ and $B(\Xi_c^+ \rightarrow pK^-\pi^+) = (4.5 \pm 2.1 \pm 0.7) \times 10^{-3}$ (from LI 19C). Its correlation with $B(\Xi_c^+ \rightarrow pK^-\pi^+)$, as measured in AAIJ 20AH, is 0.414.

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

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

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

| 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_{24}/Γ_{13}

| 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_{25}/Γ_{13}

| 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

See the note on “Baryon Decay Parameters” in the neutron Listings.

α FOR $\Xi_c^0 \rightarrow \Xi^- \pi^+$

| 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 $\Xi_c^0 \rightarrow \Xi^+ \pi^-$

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

α FOR $\Xi_c^0 \rightarrow \Lambda \bar{K}^*(892)^0$

| 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 $\alpha(\Xi_c^0 \rightarrow \Lambda \bar{K}^*(892)^0) \alpha(\Lambda \rightarrow p\pi^-) = 0.115 \pm 0.164 \pm 0.031$, and uses $\alpha(\Lambda \rightarrow p\pi^-) = 0.747 \pm 0.010$. | | | | |

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

| VALUE | EVTS | DOCUMENT ID | TECN | COMMENT |
|---|------|------------------|------|---------------------------------|
| $-0.52 \pm 0.30 \pm 0.02$ | 373 | ¹ JIA | 21 | BELL e^+e^- at $\Upsilon(nS)$ |
| ¹ JIA 21 measures $\alpha(\Xi_c^0 \rightarrow \Sigma^+ \bar{K}^*(892)^-) \alpha(\Sigma^+ \rightarrow p\pi^0) = 0.514 \pm 0.295 \pm 0.012$, and uses $\alpha(\Sigma^+ \rightarrow p\pi^0) = -0.980 \pm 0.017$. | | | | |

 Ξ_c^0 REFERENCES

| | | | | |
|-----------|------|----------------------|-----------------------------|----------------------|
| LI | 23 | PR D107 032001 | Y. Li <i>et al.</i> | (BELLE Collab.) |
| TANG | 23 | PR D107 032005 | S.S. Tang <i>et al.</i> | (BELLE Collab.) |
| AAIJ | 22Y | SCIB 67 479 | R. Aaij <i>et al.</i> | (LHCb Collab.) |
| ACHARYA | 21A | PRL 127 272001 | S. Acharya <i>et al.</i> | (ALICE Collab.) |
| JIA | 21 | JHEP 2106 160 | S. Jia <i>et al.</i> | (BELLE Collab.) |
| LI | 21C | PRL 127 121803 | Y.B. Li <i>et al.</i> | (BELLE Collab.) |
| LI | 21F | PR D105 L011102 | Y. Li <i>et al.</i> | (BELLE Collab.) |
| MCNEIL | 21 | PR D103 112002 | J.T. McNeil <i>et al.</i> | (BELLE Collab.) |
| AAIJ | 20AH | PR D102 071101 | R. Aaij <i>et al.</i> | (LHCb Collab.) |
| PDG | 20 | PTEP 2020 083C01 | P.A. Zyla <i>et al.</i> | (PDG Collab.) |
| AAIJ | 19AB | PR D99 052006 | R. Aaij <i>et al.</i> | (LHCb Collab.) |
| AAIJ | 19AG | PR D100 032001 | R. Aaij <i>et al.</i> | (LHCb Collab.) |
| LI | 19A | PRL 122 082001 | Y.B. Li <i>et al.</i> | (BELLE Collab.) |
| LI | 19C | PR D100 031101 | Y.B. Li <i>et al.</i> | (BELLE Collab.) |
| AALTONEN | 14B | PR D89 072014 | T. Aaltonen <i>et al.</i> | (CDF Collab.) |
| CHISTOV | 13 | PR D88 071103 | R. Chistov <i>et al.</i> | (BELLE Collab.) |
| AUBERT,B | 05M | PRL 95 142003 | B. Aubert <i>et al.</i> | (BABAR Collab.) |
| LESIAK | 05 | PL B605 237 | T. Lesiak <i>et al.</i> | (BELLE Collab.) |
| Also | | PL B617 198 (errat.) | T. Lesiak <i>et al.</i> | (BELLE Collab.) |
| DANKO | 04 | PR D69 052004 | I. Danko <i>et al.</i> | (CLEO Collab.) |
| LINK | 02H | PL B541 211 | J.M. Link <i>et al.</i> | (FNAL FOCUS Collab.) |
| CHAN | 01 | PR D63 111102 | S. Chan <i>et al.</i> | (CLEO Collab.) |
| FRABETTI | 98B | PL B426 403 | P.L. Frabetti <i>et al.</i> | (FNAL E687 Collab.) |
| ALEXANDER | 95B | PRL 74 3113 | J. Alexander <i>et al.</i> | (CLEO Collab.) |
| Also | | PRL 75 4155 (errat.) | J. Alexander <i>et al.</i> | (CLEO Collab.) |
| ALBRECHT | 93B | PL B303 368 | H. Albrecht <i>et al.</i> | (ARGUS Collab.) |
| FRABETTI | 93C | PRL 70 2058 | P.L. Frabetti <i>et al.</i> | (FNAL E687 Collab.) |
| HENDERSON | 92B | PL B283 161 | S. Henderson <i>et al.</i> | (CLEO Collab.) |
| ALBRECHT | 90F | PL B247 121 | H. Albrecht <i>et al.</i> | (ARGUS Collab.) |
| BARLAG | 90 | PL B236 495 | S. Barlag <i>et al.</i> | (ACCMOR Collab.) |
| ALAM | 89 | PL B226 401 | M.S. Alam <i>et al.</i> | (CLEO Collab.) |
| AVERY | 89 | PRL 62 863 | P. Avery <i>et al.</i> | (CLEO Collab.) |