Ξ_c^+

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

Neither of J or P has actually been measured.

Ξ_c^+ MASS

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

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
2467.79± 0.15 OUR FIT Error includes scale factor of 1.1.					
2467.95± 0.19 OUR AVERAGE					
2467.97± 0.14± 0.17	3.8k	[1] AAIJ	14Z	LHCB	pp at 7, 8 TeV
2468.00± 0.18± 0.51	5.1k	AALTONEN	14B	CDF	$p\overline{p}$ at 1.96 TeV
$2468.1 \pm 0.4 {}^{+0.2}_{-1.4}$	4.9k	[2] LESIAK	05	BELL	e^+e^-, $\Upsilon(4S)$
2465.8 ± 1.9 ± 2.5	90	FRABETTI	98	E687	γ Be, $\overline{E}_\gamma$= 220 GeV
2467.0 ± 1.6 ± 2.0	147	EDWARDS	96	CLE2	$e^+e^- \approx \Upsilon(4S)$
2465.1 ± 3.6 ± 1.9	30	ALBRECHT	90F	ARG	e^+e^- at $\Upsilon(4S)$
2467 ± 3 ± 4	23	ALAM	89	CLEO	e^+e^- 10.6 GeV
2466.5 ± 2.7 ± 1.2	5	BARLAG	89C	ACCM	π^- Cu 230 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2464.4 ± 2.0 ± 1.4	30	FRABETTI	93B	E687	See FRABETTI 98
2459 ± 5 ±30	56	[3] COTEUS	87	SPEC	$nA \simeq$ 600 GeV
2460 ±25	82	BIAGI	83	SPEC	Σ^- Be 135 GeV

[1] AAIJ 14Z systematic error includes in quadrature the 0.14 MeV uncertainty from the m(Λ_c^+) mass value.

[2] The systematic error was (wrongly) given the other way round in LESIAK 05; see the erratum.

[3] Although COTEUS 87 claims to agree well with BIAGI 83 on the mass and width, there appears to be a discrepancy between the two experiments. BIAGI 83 sees a single peak (stated significance about 6 standard deviations) in the $\Lambda K^- \pi^+ \pi^+$ mass spectrum. COTEUS 87 sees *two* peaks in the same spectrum, one at the Ξ_c^+ mass, the other 75 MeV lower. The latter is attributed to $\Xi_c^+ \rightarrow \Sigma^0 K^- \pi^+ \pi^+ \rightarrow (\Lambda\gamma) K^- \pi^+ \pi^+$, with the γ unseen. The *combined* significance of the double peak is stated to be 5.5 standard deviations. But the absence of any trace of a lower peak in BIAGI 83 seems to us to throw into question the interpretation of the lower peak of COTEUS 87.

Ξ_c^+ MEAN LIFE

VALUE (10^{-15} s)	EVTS	DOCUMENT ID		TECN	COMMENT
453± 5 OUR AVERAGE					
454± 5± 2	56k	[1] AAIJ	19AG	LHCB	$\Xi_c^+ \rightarrow pK^-\pi^+$
503± 47± 18	250	MAHMOOD	02	CLE2	$e^+e^- \approx \Upsilon(4S)$
439± 22± 9	532	LINK	01D	FOCS	γ nucleus, $\overline{E}_\gamma \approx$ 180 GeV
$340^{+70}_{-50} \pm 20$	56	FRABETTI	98	E687	γ Be, $\overline{E}_\gamma$= 220 GeV
$400^{+180}_{-120} \pm 100$	102	COTEUS	87	SPEC	$nA \simeq$ 600 GeV

$480^{+210}_{-150}{}^{+200}_{-100}$	53	BIAGI	85C	SPEC	Σ^- Be 135 GeV

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

$410^{+110}_{-80} \pm 20$	30	FRABETTI	93B	E687	See FRABETTI 98
200^{+110}_{-60}	6	BARLAG	89C	ACCM	π^- (K^-) Cu 230 GeV

[1] AAIJ 19AG reports [Ξ_c^+ MEAN LIFE] / [$D^\pm$ MEAN LIFE] $= 0.4392 \pm 0.0034 \pm 0.0028$ which we multiply by our best (shown rounded) 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 (shown rounded) value.

Ξ_c^+ DECAY MODES

Branching fractions marked with a footnote, e.g. [a], have been corrected for decay modes not observed in the experiments. For example, the submode fraction $\Xi_c^+ \to \Sigma^+ \overline{K}^*(892)^0$ seen in $\Xi_c^+ \to \Sigma^+ K^- \pi^+$ has been multiplied up to include $\overline{K}^*(892)^0 \to \overline{K}^0 \pi^0$ decays.

	Mode		Fraction (Γ_i/Γ)	Scale factor/ Confidence level
	Cabibbo-favored ($S = -2$) decays			
Γ_1	$p 2K^0_S$		$(2.5\pm1.3) \times 10^{-3}$	
Γ_2	$\Lambda \overline{K}^0 \pi^+$		—	
Γ_3	$\Sigma(1385)^+ \overline{K}^0$	[a]	(2.9 ± 2.0) %	
Γ_4	$\Lambda K^- 2\pi^+$		$(9 \pm4) \times 10^{-3}$	
Γ_5	$\Lambda \overline{K}^*(892)^0 \pi^+$	[a]	$< 5 \times 10^{-3}$	CL=90%
Γ_6	$\Sigma(1385)^+ K^- \pi^+$	[a]	$< 6 \times 10^{-3}$	CL=90%
Γ_7	$\Sigma^+ K^0_S$		$(1.9\pm0.9) \times 10^{-3}$	
Γ_8	$\Sigma^+ K^- \pi^+$		(2.7 ± 1.2) %	
Γ_9	$\Sigma^+ \overline{K}^*(892)^0$	[a]	(2.3 ± 1.1) %	
Γ_{10}	$\Sigma^0 K^- 2\pi^+$		$(8 \pm5) \times 10^{-3}$	
Γ_{11}	$\Xi^0 \pi^+$		$(7.2\pm3.2) \times 10^{-3}$	
Γ_{12}	$\Xi^- 2\pi^+$		(2.9 ± 1.3) %	
Γ_{13}	$\Xi(1530)^0 \pi^+$	[a]	$< 2.9 \times 10^{-3}$	CL=90%
Γ_{14}	$\Xi(1620)^0 \pi^+$		seen	
Γ_{15}	$\Xi(1690)^0 \pi^+$		seen	
Γ_{16}	$\Xi^0 \pi^+ \pi^0$		(6.7 ± 3.5) %	
Γ_{17}	$\Xi^0 \pi^- 2\pi^+$		(5.0 ± 2.6) %	
Γ_{18}	$\Xi^0 e^+ \nu_e$		(7 ± 4) %	
Γ_{19}	$\Omega^- K^+ \pi^+$		$(2.0\pm1.5) \times 10^{-3}$	
	Cabibbo-suppressed decays			
Γ_{20}	$p K^- \pi^+$		$(6.2\pm3.0) \times 10^{-3}$	S=1.5
Γ_{21}	$p \overline{K}^*(892)^0$	[a]	$(3.3\pm1.7) \times 10^{-3}$	
Γ_{22}	$p \overline{K}^*_0(700)^0$, $\overline{K}^*_0(700)^0 \to K^- \pi^+$		$(5 \pm4) \times 10^{-4}$	

Γ_{23}	$p\overline{K}^*(892)^0$, $\overline{K}^* \to K^-\pi^+$	$(1.8\pm0.8)\times10^{-3}$	
Γ_{24}	$p\overline{K}^*_0(1430)^0$, $\overline{K}^*_0(1430)^0 \to K^-\pi^+$	$(10\pm6)\times10^{-4}$	
Γ_{25}	$\Delta(1232)^{++}K^-$, $\Delta(1232)^{++} \to p\pi^+$	$(1.1\pm0.5)\times10^{-3}$	
Γ_{26}	$\Delta(1600)^{++}K^-$, $\Delta(1600)^{++} \to p\pi^+$	$(2.7\pm1.5)\times10^{-4}$	
Γ_{27}	$\Delta(1700)^{++}K^-$, $\Delta(1700)^{++} \to p\pi^+$	$(1.2\pm0.7)\times10^{-4}$	
Γ_{28}	$\Lambda(1405)\pi^+$, $\Lambda(1405) \to pK^-$	$(2.0\pm1.4)\times10^{-4}$	
Γ_{29}	$\Lambda(1520)\pi^+$, $\Lambda(1520) \to pK^-$	$(1.6\pm0.8)\times10^{-4}$	
Γ_{30}	$\Lambda(1670)\pi^+$, $\Lambda(1670) \to pK^-$	$(1.9\pm0.9)\times10^{-4}$	
Γ_{31}	$\Lambda(1820)\pi^+$, $\Lambda(1820) \to pK^-$	$(5.1\pm2.7)\times10^{-5}$	
Γ_{32}	$\Lambda(2000)\pi^+$, $\Lambda(2000) \to pK^-$	$(4.6\pm2.3)\times10^{-4}$	
Γ_{33}	pK^0_S	$(7.1\pm3.2)\times10^{-4}$	
Γ_{34}	$\Lambda\pi^+$	$(4.5\pm2.0)\times10^{-4}$	
Γ_{35}	$\Sigma^+\pi^+\pi^-$	(1.4 ± 0.8) %	
Γ_{36}	$\Sigma^-2\pi^+$	$(5.1\pm3.4)\times10^{-3}$	
Γ_{37}	$\Sigma^+K^+K^-$	$(4.3\pm2.5)\times10^{-3}$	
Γ_{38}	$\Sigma^+\phi$	[a] $< 3.2 \times10^{-3}$	CL=90%
Γ_{39}	$\Xi(1690)^0K^+$, $\Xi^0 \to \Sigma^+K^-$	$< 1.3 \times10^{-3}$	CL=90%
Γ_{40}	$\Sigma^0\pi^+$	$(1.2\pm0.5)\times10^{-3}$	
Γ_{41}	Ξ^0K^+	$(4.9\pm2.3)\times10^{-4}$	
Γ_{42}	$p\phi(1020)$	$(1.2\pm0.6)\times10^{-4}$	

[a] This branching fraction includes all the decay modes of the final-state resonance.

Ξ_c^+ BRANCHING RATIOS

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

$\Gamma(p2K^0_S)/\Gamma(\Xi^-2\pi^+)$ — **Γ_1/Γ_{12}**

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.087±0.016±0.014	168 ± 27	LESIAK	05	BELL	e^+e^-, $\Upsilon(4S)$

$\Gamma(\Sigma(1385)^+\overline{K}^0)/\Gamma(\Xi^-2\pi^+)$ — **Γ_3/Γ_{12}**

Unseen decay modes of the $\Sigma(1385)^+$ are included.

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
1.00±0.49±0.24	20	LINK	03E	FOCS	< 1.72, 90% CL

$\Gamma(\Lambda K^-2\pi^+)/\Gamma(\Xi^-2\pi^+)$ — **Γ_4/Γ_{12}**

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.323±0.033 OUR AVERAGE					
0.32 ±0.03 ±0.02	1177 ± 55	LESIAK	05	BELL	e^+e^-, $\Upsilon(4S)$
0.28 ±0.06 ±0.06	58	LINK	03E	FOCS	γ nucleus, $\overline{E}_\gamma \approx 180$ GeV
0.58 ±0.16 ±0.07	61	BERGFELD	96	CLE2	$e^+e^- \approx \Upsilon(4S)$

$\Gamma(\Lambda\overline{K}^*(892)^0\pi^+)/\Gamma(\Lambda K^-2\pi^+)$ — Γ_5/Γ_4

Unseen decay modes of the $\overline{K}^*(892)^0$ are included.

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.5	90	BERGFELD	96	CLE2	$e^+e^- \approx \Upsilon(4S)$

$\Gamma(\Sigma(1385)^+K^-\pi^+)/\Gamma(\Lambda K^-2\pi^+)$ — Γ_6/Γ_4

Unseen decay modes of the $\Sigma(1385)^+$ are included.

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.7	90	BERGFELD	96	CLE2	$e^+e^- \approx \Upsilon(4S)$

$\Gamma(\Sigma^+K^0_S)/\Gamma(\Xi^-2\pi^+)$ — Γ_7/Γ_{12}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
6.7±0.7±0.3	0.47k	ADACHI	25T	BEL2	e^+e^- at Υ(nS)

$\Gamma(\Sigma^+K^-\pi^+)/\Gamma(\Xi^-2\pi^+)$ — Γ_8/Γ_{12}

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.94±0.10 OUR AVERAGE					
0.91±0.11±0.04	251	LINK	03E	FOCS	γ nucleus, $\overline{E}_\gamma \approx 180$ GeV
0.92±0.20±0.07		[1] JUN	00	SELX	Σ^- nucleus, 600 GeV
1.18±0.26±0.17	119	BERGFELD	96	CLE2	$e^+e^- \approx \Upsilon(4S)$

[1] This JUN 00 result is redundant with other results given below.

$\Gamma(\Sigma^+\overline{K}^*(892)^0)/\Gamma(\Xi^-2\pi^+)$ — Γ_9/Γ_{12}

Unseen decay modes of the $\overline{K}^*(892)^0$ are included.

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.81±0.15 OUR AVERAGE					
0.78±0.16±0.06	119	LINK	03E	FOCS	γ nucleus, $\overline{E}_\gamma \approx 180$ GeV
0.92±0.27±0.14	61	BERGFELD	96	CLE2	$e^+e^- \approx \Upsilon(4S)$

$\Gamma(\Sigma^0K^-2\pi^+)/\Gamma(\Lambda K^-2\pi^+)$ — Γ_{10}/Γ_4

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.84±0.36	47	[1] COTEUS	87	SPEC	$nA \simeq 600$ GeV

[1] See, however, the note on the COTEUS 87 Ξ_c^+ mass measurement.

$\Gamma(\Xi^0\pi^+)/\Gamma(\Xi^-2\pi^+)$ — Γ_{11}/Γ_{12}

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.252±0.011 OUR AVERAGE					
0.251±0.005±0.010	4.3k	ADACHI	25T	BEL2	e^+e^- at Υ(nS)
0.55 ±0.13 ±0.09	39	EDWARDS	96	CLE2	$e^+e^- \approx \Upsilon(4S)$

$\Gamma(\Xi^-2\pi^+)/\Gamma_{total}$ — Γ_{12}/Γ

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
2.86±1.21±0.38	24	[1] LI	19C	BELL	$e^+e^- \approx \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
seen	131	BERGFELD	96	CLE2	$e^+e^- \approx \Upsilon(4S)$
seen	160	AVERY	95	CLE2	$e^+e^- \approx \Upsilon(4S)$
seen	30	FRABETTI	93B	E687	γ Be, $\overline{E}_\gamma = 220$ GeV
seen	30	ALBRECHT	90F	ARG	e^+e^- at $\Upsilon(4S)$
seen	23	ALAM	89	CLEO	e^+e^- 10.6 GeV

[1] LI 19C report a significance of 6.8 σ for the observation of this decay mode, observed in Ξ_c^+ from $\overline{B}^0 \to \overline{\Lambda}_c^- \Xi_c^+$.

$\Gamma(\Xi(1530)^0\pi^+)/\Gamma(\Xi^- 2\pi^+)$ — Γ_{13}/Γ_{12}

Unseen decay modes of the $\Xi(1530)^0$ are included.

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.1	90	LINK	03E	FOCS	γ nucleus, $\overline{E}_\gamma \approx$ 180 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.2	90	BERGFELD	96	CLE2	$e^+e^- \approx \Upsilon(4S)$

$\Gamma(\Xi(1620)^0\pi^+)/\Gamma_{total}$ — Γ_{14}/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
seen	SUMIHAMA	19	BELL	e^+e^- mostly at $\Upsilon(4S)$

$\Gamma(\Xi(1690)^0\pi^+)/\Gamma_{total}$ — Γ_{15}/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
seen	SUMIHAMA	19	BELL	e^+e^- mostly at $\Upsilon(4S)$

$\Gamma(\Xi^0\pi^+\pi^0)/\Gamma(\Xi^- 2\pi^+)$ — Γ_{16}/Γ_{12}

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
2.34±0.57±0.37	81	EDWARDS	96	CLE2	$e^+e^- \approx \Upsilon(4S)$

$\Gamma(\Xi(1530)^0\pi^+)/\Gamma(\Xi^0\pi^+\pi^0)$ — Γ_{13}/Γ_{16}

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.3	90	EDWARDS	96	CLE2	$e^+e^- \approx \Upsilon(4S)$

$\Gamma(\Xi^0\pi^- 2\pi^+)/\Gamma(\Xi^- 2\pi^+)$ — Γ_{17}/Γ_{12}

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
1.74±0.42±0.27	57	EDWARDS	96	CLE2	$e^+e^- \approx \Upsilon(4S)$

$\Gamma(\Xi^0 e^+\nu_e)/\Gamma(\Xi^- 2\pi^+)$ — Γ_{18}/Γ_{12}

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
$2.3\pm0.6^{+0.3}_{-0.6}$	41	ALEXANDER	95B	CLE2	$e^+e^- \approx \Upsilon(4S)$

$\Gamma(\Omega^- K^+\pi^+)/\Gamma(\Xi^- 2\pi^+)$ — Γ_{19}/Γ_{12}

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.07±0.03±0.03	14	LINK	03E	FOCS	< 0.12, 90% CL

Cabibbo-suppressed decays

$\Gamma(pK^-\pi^+)/\Gamma_{total}$ — Γ_{20}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
6.2 ±3.0 OUR AVERAGE	Error includes scale factor of 1.5.				
11.35±0.02±3.87	1.6M	[1] AAIJ	20AH	LHCB	pp at 13 TeV
4.5 ±2.1 ±0.7	24	[2] LI	19C	BELL	$e^+e^- \approx \Upsilon(4S)$

[1] AAIJ 20AH extracts B($\Xi_c^+ \to pK^-\pi^+$) assuming 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 $f_{\Xi_c^0}/f_{\Xi_c^+} = 1.00 \pm 0.01$, and uses the input $B(\Lambda_c^+ \to pK^-\pi^+) = (6.23 \pm 0.33) \times 10^{-2}$. Its correlation with $B(\Xi_c^0 \to \Lambda_c^+\pi^-)$, as measured in AAIJ 20AH, is 0.414.

[2] LI 19C report a significance of 4.4 σ for the observation of this decay mode, observed in Ξ_c^+ from $\overline{B}^0 \to \overline{\Lambda}_c^- \Xi_c^+$.

$\Gamma(pK^-\pi^+)/\Gamma(\Xi^-2\pi^+)$ — Γ_{20}/Γ_{12}

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
0.21 ±0.04 OUR AVERAGE				
0.194±0.054	47 ± 11	VAZQUEZ-JA...08	SELX	Σ^- nucleus, 600 GeV
0.234±0.047±0.022	202	LINK 01B	FOCS	γ nucleus
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.20 ±0.04 ±0.02	76	JUN 00	SELX	See VAZQUEZ-JAUREGUI 08

$\Gamma(p\overline{K}^*(892)^0)/\Gamma(pK^-\pi^+)$ — Γ_{21}/Γ_{20}

Unseen decay modes of the $\overline{K}^*(892)^0$ are included.

VALUE	DOCUMENT ID	TECN	COMMENT
0.54±0.09±0.05	LINK 01B	FOCS	γ nucleus

$\Gamma(p\overline{K}_0^*(700)^0,\ \overline{K}_0^*(700)^0 \to K^-\pi^+)/\Gamma(pK^-\pi^+)$ — Γ_{22}/Γ_{20}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID	TECN	COMMENT
7.4±0.4±0.7±4.8	187k	[1] AAIJ 25AL	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of 20 resonance modes, the third uncertainty is due to the amplitude model. We report those only those fit fractions that are either large or incompatible with zero at approximately at least 2σ significance, and whose interpretation is not subject to large interference effects.

$\Gamma(p\overline{K}^*(892)^0,\ \overline{K}^* \to K^-\pi^+)/\Gamma(pK^-\pi^+)$ — Γ_{23}/Γ_{20}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID	TECN	COMMENT
28.61±0.28±0.80±0.82	187k	[1] AAIJ 25AL	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of 20 resonance modes, the third uncertainty is due to the amplitude model. We report those only those fit fractions that are either large or incompatible with zero at approximately at least 2σ significance, and whose interpretation is not subject to large interference effects.

$\Gamma(p\overline{K}_0^*(1430)^0,\ \overline{K}_0^*(1430)^0 \to K^-\pi^+)/\Gamma(pK^-\pi^+)$ — Γ_{24}/Γ_{20}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID	TECN	COMMENT
15.6±0.7±1.9±7.1	187k	[1] AAIJ 25AL	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of 20 resonance modes, the third uncertainty is due to the amplitude model. We report those only those fit fractions that are either large or incompatible with zero at approximately at least 2σ significance, and whose interpretation is not subject to large interference effects.

$\Gamma(\Delta(1232)^{++}K^-,\ \Delta(1232)^{++} \to p\pi^+)/\Gamma(pK^-\pi^+)$ — Γ_{25}/Γ_{20}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID	TECN	COMMENT
17.2±0.4±0.5±1.3	187k	[1] AAIJ 25AL	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of 20 resonance modes, the third uncertainty is due to the amplitude model. We report those only those fit fractions that are either large or incompatible with zero at approximately at least 2σ significance, and whose interpretation is not subject to large interference effects.

$\Gamma(\Delta(1600)^{++} K^-,\ \Delta(1600)^{++} \to p\pi^+)/\Gamma(pK^-\pi^+)$ — Γ_{26}/Γ_{20}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
4.31±0.27±0.91±0.96	187k	[1] AAIJ	25AL	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of 20 resonance modes, the third uncertainty is due to the amplitude model. We report those only those fit fractions that are either large or incompatible with zero at approximately at least 2σ significance, and whose interpretation is not subject to large interference effects.

$\Gamma(\Delta(1700)^{++} K^-,\ \Delta(1700)^{++} \to p\pi^+)/\Gamma(pK^-\pi^+)$ — Γ_{27}/Γ_{20}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
2.01±0.17±0.15±0.44	187k	[1] AAIJ	25AL	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of 20 resonance modes, the third uncertainty is due to the amplitude model. We report those only those fit fractions that are either large or incompatible with zero at approximately at least 2σ significance, and whose interpretation is not subject to large interference effects.

$\Gamma(\Lambda(1405)\pi^+,\ \Lambda(1405) \to pK^-)/\Gamma(pK^-\pi^+)$ — Γ_{28}/Γ_{20}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
3.3±0.2±0.2±1.5	187k	[1] AAIJ	25AL	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of 20 resonance modes, the third uncertainty is due to the amplitude model. We report those only those fit fractions that are either large or incompatible with zero at approximately at least 2σ significance, and whose interpretation is not subject to large interference effects.

$\Gamma(\Lambda(1520)\pi^+,\ \Lambda(1520) \to pK^-)/\Gamma(pK^-\pi^+)$ — Γ_{29}/Γ_{20}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
2.64±0.08±0.04±0.11	187k	[1] AAIJ	25AL	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of 20 resonance modes, the third uncertainty is due to the amplitude model. We report those only those fit fractions that are either large or incompatible with zero at approximately at least 2σ significance, and whose interpretation is not subject to large interference effects.

$\Gamma(\Lambda(1670)\pi^+,\ \Lambda(1670) \to pK^-)/\Gamma(pK^-\pi^+)$ — Γ_{30}/Γ_{20}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
3.03±0.09±0.11±0.17	187k	[1] AAIJ	25AL	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of 20 resonance modes, the third uncertainty is due to the amplitude model. We report those only those fit fractions that are either large or incompatible with zero at approximately at least 2σ significance, and whose interpretation is not subject to large interference effects.

$\Gamma(\Lambda(1820)\pi^+,\ \Lambda(1820) \to pK^-)/\Gamma(pK^-\pi^+)$ — Γ_{31}/Γ_{20}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
0.82±0.09±0.08±0.14	187k	[1] AAIJ	25AL	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of 20 resonance modes, the third uncertainty is due to the amplitude model. We report those only those fit fractions that are either large or incompatible with zero at approximately at least 2σ significance, and whose interpretation is not subject to large interference effects.

$\Gamma(\Lambda(2000)\pi^+,\ \Lambda(2000) \to pK^-)/\Gamma(pK^-\pi^+)$ — Γ_{32}/Γ_{20}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
7.4±0.3±0.8±1.1	187k	[1] AAIJ	25AL	LHCB	pp at 7, 8, 13 TeV

[1] Amplitude analysis of 20 resonance modes, the third uncertainty is due to the amplitude model. We report those only those fit fractions that are either large or incompatible with zero at approximately at least 2σ significance, and whose interpretation is not subject to large interference effects.

$\Gamma(pK^0_S)/\Gamma(\Xi^- 2\pi^+)$ — Γ_{33}/Γ_{12}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
2.47±0.16±0.07	1.5k	ADACHI	25N	BEL2	e^+e^- at Υ(nS)

$\Gamma(\Lambda\pi^+)/\Gamma(\Xi^- 2\pi^+)$ — Γ_{34}/Γ_{12}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
1.56±0.14±0.09	0.8k	ADACHI	25N	BEL2	e^+e^- at Υ(nS)

$\Gamma(\Sigma^+\pi^+\pi^-)/\Gamma(\Xi^- 2\pi^+)$ — Γ_{35}/Γ_{12}

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.48±0.20	21 ± 8	VAZQUEZ-JA...	08	SELX	Σ^- nucleus, 600 GeV

$\Gamma(\Sigma^- 2\pi^+)/\Gamma(\Xi^- 2\pi^+)$ — Γ_{36}/Γ_{12}

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.18±0.09	10 ± 4	VAZQUEZ-JA...	08	SELX	Σ^- nucleus, 600 GeV

$\Gamma(\Sigma^+K^+K^-)/\Gamma(\Sigma^+K^-\pi^+)$ — Γ_{37}/Γ_8

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.16±0.06±0.01	17	LINK	03E	FOCS	γ nucleus, $\overline{E}_\gamma \approx$ 180 GeV

$\Gamma(\Sigma^+\phi)/\Gamma(\Sigma^+K^-\pi^+)$ — Γ_{38}/Γ_8

Unseen decay modes of the ϕ are included.

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.12	90	LINK	03E	FOCS	γ nucleus, $\overline{E}_\gamma \approx$ 180 GeV

$\Gamma(\Sigma^0\pi^+)/\Gamma(\Xi^- 2\pi^+)$ — Γ_{40}/Γ_{12}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
4.13±0.26±0.22	0.9k	ADACHI	25N	BEL2	e^+e^- at Υ(nS)

$\Gamma(\Xi(1690)^0K^+ \times B(\Xi(1690)^0 \to \Sigma^+K^-))/\Gamma(\Sigma^+K^-\pi^+)$ — Γ_{39}/Γ_8

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.05	90	LINK	03E	FOCS	γ nucleus, $\overline{E}_\gamma \approx$ 180 GeV

$\Gamma(\Xi^0K^+)/\Gamma(\Xi^- 2\pi^+)$ — Γ_{41}/Γ_{12}

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
1.7±0.3±0.1	0.24k	ADACHI	25T	BEL2	e^+e^- at Υ(nS)

$\Gamma(p\phi(1020))/\Gamma(pK^-\pi^+)$ Γ_{42}/Γ_{20}

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
19.8±0.7±0.9±0.2	3.4k	[1] AAIJ	19I	LHCB	pp at 8 TeV

[1] The last uncertainty is due to the uncertainty in the $\phi \to K^+K^-$ branching fraction.

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