



$I(J^P) = ?(?^?)$ Status: **

OMITTED FROM SUMMARY TABLE

$\Xi_c(2930)$ MASSES

$\Xi_c(2930)^+$ MASS

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
2942.3±4.4±1.5	21	LI	18D	BELL e^+e^- at $\Upsilon(4S)$

$\Xi_c(2930)^0$ MASS

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
2938.55±0.30 OUR AVERAGE				
2938.5 ±0.9 ± 2.3	1.5k	¹ AAIJ	23X	LHCB $B^- \rightarrow \Lambda_c^+ \bar{\Lambda}_c^- K^-$
2938.55±0.21± 0.22	10.4k	² AAIJ	20X	LHCB pp at 13 TeV

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

2928.9 ±3.0 ^{+0.9} _{-12.0}	61	LI	18A	BELL e^+e^- at $\Upsilon(4S)$
2931 ±3 ± 5	34	AUBERT	08H	BABR $\Upsilon(4S) \rightarrow B\bar{B}$

¹ AAIJ 23X studies the $\Lambda_c^+ K^-$ system within $B^- \rightarrow \Lambda_c^+ \bar{\Lambda}_c^- K^-$ decays.
² AAIJ 20X uses a prompt $\Lambda_c^+ K^-$ sample and reports $2938.55 \pm 0.21 \pm 0.17 \pm 0.14$ MeV where the last uncertainty is due to the Λ_c^+ mass. Observes that the broader resonance at 2930 MeV seen in $B^- \rightarrow K^- \Lambda_c^+ \bar{\Lambda}_c^-$ by LI 18A and AUBERT 08H resolves into two narrower peaks at approximately 2939 MeV and 2923 MeV.

$\Xi_c(2930)^+ - \Xi_c(2930)^0$ MASS DIFFERENCE

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
13.4±5.3 ^{+1.7}_{-12.1}	21	¹ LI	18D	BELL e^+e^- at $\Upsilon(4S)$

¹ This LI 18D value is not independent of the mass measurements.

$\Xi_c(2930)$ WIDTHS

$\Xi_c(2930)^+$ WIDTH

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
14.8±8.8±2.5	21	LI	18D	BELL e^+e^- at $\Upsilon(4S)$

$\Xi_c(2930)^0$ WIDTH

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
10.2±0.8± 1.1	10.4k	¹ AAIJ	20X	LHCB pp at 13 TeV
11.0±1.9± 7.5	1.5k	² AAIJ	23X	LHCB $B^- \rightarrow \Lambda_c^+ \bar{\Lambda}_c^- K^-$
19.5±8.4 ^{+5.9} _{-7.9}	61	LI	18A	BELL e^+e^- at $\Upsilon(4S)$
36 ±7 ±11	34	AUBERT	08H	BABR $\Upsilon(4S) \rightarrow B\bar{B}$

- ¹ AAIJ 20X uses a prompt $\Lambda_c^+ K^-$ sample and observes that the broader resonance at 2930 MeV seen in $B^- \rightarrow K^- \Lambda_c^+ \bar{\Lambda}_c^-$ by LI 18A and AUBERT 08H resolves into two narrower peaks at approximately 2939 MeV and 2923 MeV.
- ² AAIJ 23X studies the $\Lambda_c^+ K^-$ system within $B^- \rightarrow \Lambda_c^+ \bar{\Lambda}_c^- K^-$ decays.

$\Xi_c(2930)$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad \Lambda_c^+ K^-$	seen
$\Gamma_2 \quad \Lambda_c^+ K_S^0$	seen

$\Xi_c(2930)$ BRANCHING RATIOS

$\Gamma(\Lambda_c^+ K^-)/\Gamma_{\text{total}}$					Γ_1/Γ
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	
seen	1.5k	AAIJ	23X	LHCB	$B^- \rightarrow \Lambda_c^+ \bar{\Lambda}_c^- K^-$
seen	10.4k	AAIJ	20X	LHCB	pp at 13 TeV
seen	61	LI	18A	BELL	Significance 5.1 std
seen	34	AUBERT	08H	BABR	e^+e^- at $\Upsilon(4S)$
$\Gamma(\Lambda_c^+ K_S^0)/\Gamma_{\text{total}}$					Γ_2/Γ
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	
seen	21	LI	18D	BELL	Significance 4.1 std

$\Xi_c(2930)$ REFERENCES

AAIJ	23X	PR D108 012020	R. Aaij <i>et al.</i>	(LHCb Collab.)
AAIJ	20X	PRL 124 222001	R. Aaij <i>et al.</i>	(LHCb Collab.)
LI	18A	EPJ C78 252	Y.B. Li <i>et al.</i>	(BELLE Collab.)
LI	18D	EPJ C78 928	Y.B. Li <i>et al.</i>	(BELLE Collab.)
AUBERT	08H	PR D77 031101	B. Aubert <i>et al.</i>	(BABAR Collab.)