

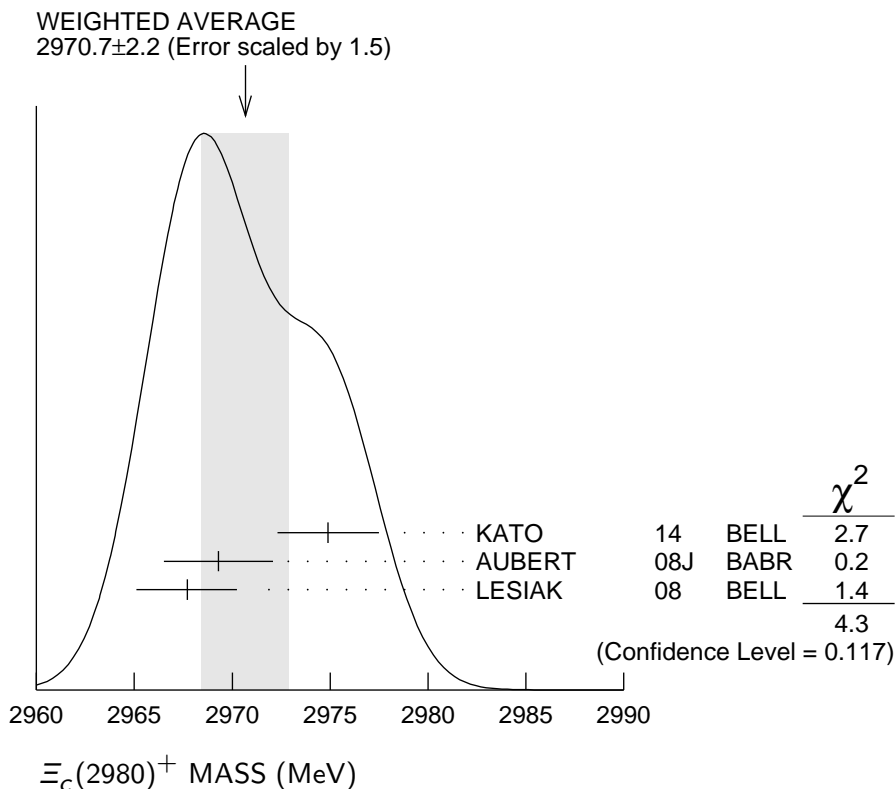
$\Xi_c(2980)$

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

$\Xi_c(2980)$ MASSES

$\Xi_c(2980)^+$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2970.7±2.2 OUR AVERAGE		Error includes scale factor of 1.5. See the ideogram below.		
2974.9±1.5±2.1	244 ± 39	KATO	14 BELL	$e^+e^- \Upsilon(1S)$ to $\Upsilon(5S)$
2969.3±2.2±1.7	756 ± 206	AUBERT	08J BABR	$e^+e^- \approx 10.58$ GeV
2967.7±2.3 ^{+1.1} _{-1.2}	78 ± 13	LESIK	08 BELL	$e^+e^- \approx \Upsilon(4S)$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
2978.5±2.1±2.0	405 ± 51	CHISTOV	06 BELL	See KATO 14



$\Xi_c(2980)^0$ MASS

The evidence is statistically weaker for this charge state.

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2968.0±2.6 OUR AVERAGE		Error includes scale factor of 1.2.		
2972.9±4.4±1.6	67 ± 44	AUBERT	08J BABR	$e^+e^- \approx 10.58$ GeV
2965.7±2.4 ^{+1.1} _{-1.2}	57 ± 13	LESIK	08 BELL	$e^+e^- \approx \Upsilon(4S)$
2977.1±8.8±3.5	42 ± 24	CHISTOV	06 BELL	$e^+e^- \approx \Upsilon(4S)$

$\Xi_c(2980)$ WIDTHS

$\Xi_c(2980)^+$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
17.9 ± 3.5 OUR AVERAGE				
14.8 ± 2.5 ± 4.1	244 ± 39	KATO	14 BELL	$e^+e^- \Upsilon(1S)$ to $\Upsilon(5S)$
27 ± 8 ± 2	756 ± 206	AUBERT	08J BABR	$e^+e^- \approx 10.58$ GeV
18 ± 6 ± 3	78 ± 13	LESIK	08 BELL	$e^+e^- \approx \Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
43.5 ± 7.5 ± 7.0	405 ± 51	CHISTOV	06 BELL	See KATO 14

$\Xi_c(2980)^0$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
20 ± 7 OUR AVERAGE Error includes scale factor of 1.3.				
31 ± 7 ± 8	67 ± 44	AUBERT	08J BABR	$e^+e^- \approx 10.58$ GeV
15 ± 6 ± 3	57 ± 13	LESIK	08 BELL	$e^+e^- \approx \Upsilon(4S)$

$\Xi_c(2980)$ DECAY MODES

Mode	Fraction (Γ_j/Γ)
$\Gamma_1 \Lambda_c^+ \bar{K} \pi$	seen
$\Gamma_2 \Sigma_c(2455) \bar{K}$	seen
$\Gamma_3 \Lambda_c^+ \bar{K}$	not seen
$\Gamma_4 \Xi_c 2\pi$	seen
$\Gamma_5 \Xi_c(2645) \pi$	seen

$\Xi_c(2980)$ BRANCHING RATIOS

$\Gamma(\Lambda_c^+ \bar{K} \pi)/\Gamma_{\text{total}}$				Γ_1/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
seen	AUBERT	08J BABR	$e^+e^- \approx \Upsilon(4S)$	
seen	CHISTOV	06 BELL	$e^+e^- \approx \Upsilon(4S)$	
$\Gamma(\Sigma_c(2455) \bar{K})/\Gamma(\Lambda_c^+ \bar{K} \pi)$				Γ_2/Γ_1
VALUE	DOCUMENT ID	TECN	COMMENT	
0.55 ± 0.07 ± 0.13	AUBERT	08J BABR	$e^+e^- \approx \Upsilon(4S)$	
$\Gamma(\Xi_c(2645) \pi)/\Gamma_{\text{total}}$				Γ_5/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
seen	LESIK	08 BELL	$e^+e^- \approx \Upsilon(4S)$	

$\Xi_c(2980)$ REFERENCES

KATO	14	PR D89 052003	Y. Kato <i>et al.</i>	(BELLE Collab.)
AUBERT	08J	PR D77 012002	B. Aubert <i>et al.</i>	(BABAR Collab.)
LESIK	08	PL B665 9	T. Lesiak <i>et al.</i>	(BELLE Collab.)
CHISTOV	06	PRL 97 162001	R. Chistov <i>et al.</i>	(BELLE Collab.)