

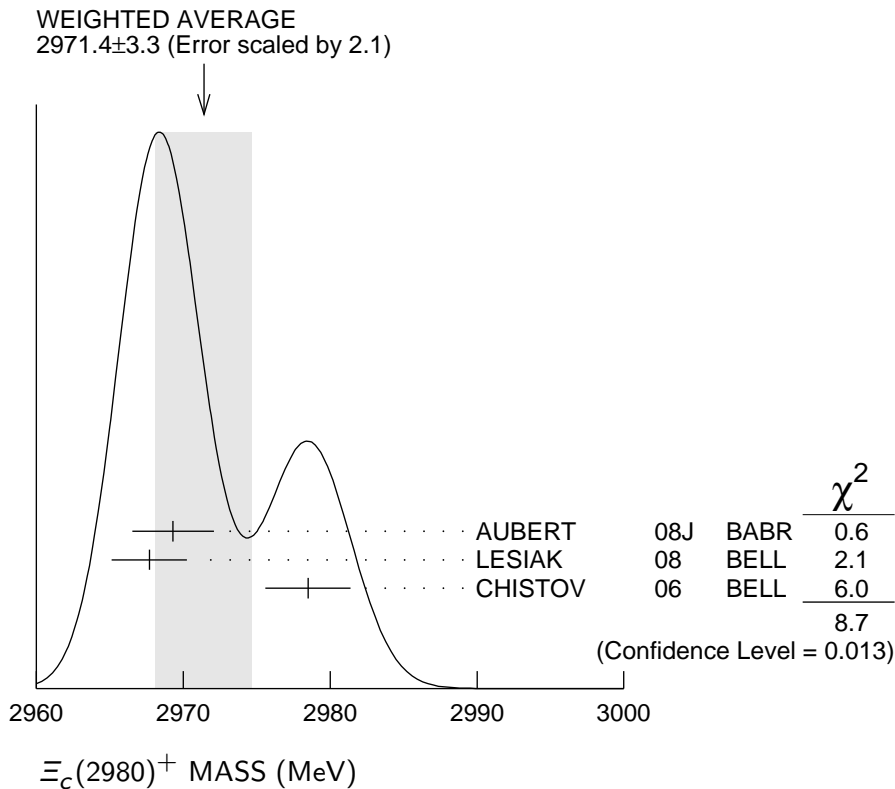
# $\Xi_c(2980)$

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

## $\Xi_c(2980)$ MASSES

### $\Xi_c(2980)^+$ MASS

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>2971.4 ± 3.3 OUR AVERAGE</b> Error includes scale factor of 2.1. See the ideogram below.				
2969.3 ± 2.2 ± 1.7	756 ± 206	AUBERT	08J BABR	$e^+ e^- \approx 10.58 \text{ GeV}$
2967.7 ± 2.3 $\begin{smallmatrix} +1.1 \\ -1.2 \end{smallmatrix}$	78 ± 13	LESIAK	08 BELL	$e^+ e^- \approx \Upsilon(4S)$
2978.5 ± 2.1 ± 2.0	405 ± 51	CHISTOV	06 BELL	$e^+ e^- \approx \Upsilon(4S)$



### $\Xi_c(2980)^0$ MASS

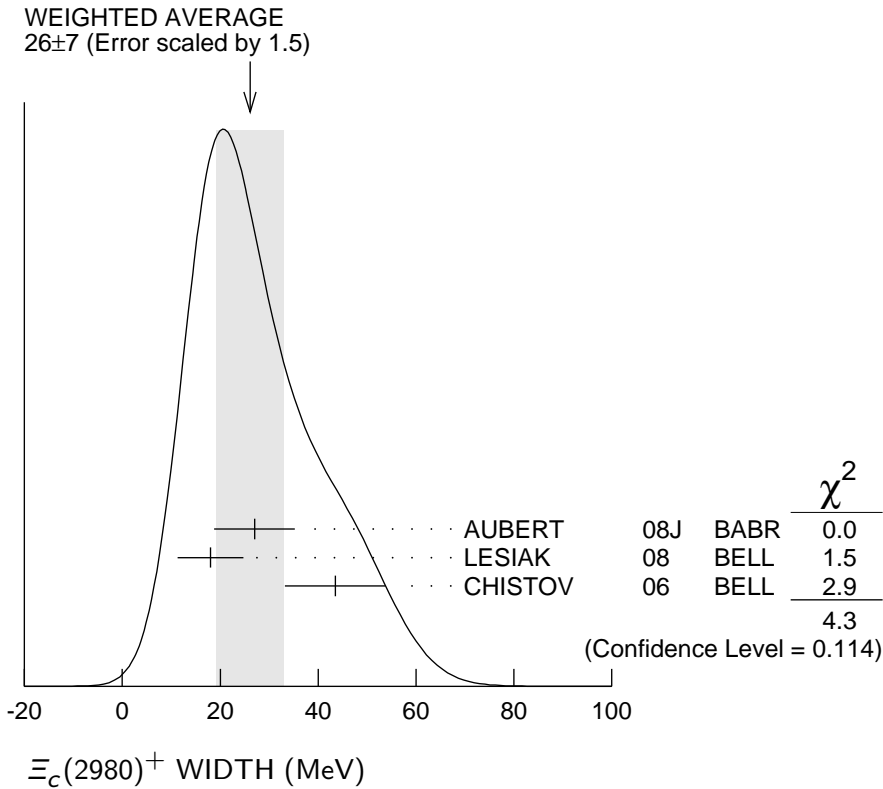
The evidence is statistically weaker for this charge state.

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>2968.0 ± 2.6 OUR AVERAGE</b> Error includes scale factor of 1.2.				
2972.9 ± 4.4 ± 1.6	67 ± 44	AUBERT	08J BABR	$e^+ e^- \approx 10.58 \text{ GeV}$
2965.7 ± 2.4 $\begin{smallmatrix} +1.1 \\ -1.2 \end{smallmatrix}$	57 ± 13	LESIAK	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
<b>26 ± 7 OUR AVERAGE</b>				Error includes scale factor of 1.5. See the ideogram below.
27 ± 8 ± 2	756 ± 206	AUBERT	08J BABR	$e^+ e^- \approx 10.58$ GeV
18 ± 6 ± 3	78 ± 13	LESIK	08 BELL	$e^+ e^- \approx \Upsilon(4S)$
43.5 ± 7.5 ± 7.0	405 ± 51	CHISTOV	06 BELL	$e^+ e^- \approx \Upsilon(4S)$



### $\Xi_c(2980)^0$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>20 ± 7 OUR AVERAGE</b>				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 ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad \Lambda_c^+ \bar{K} \pi$	seen
$\Gamma_2 \quad \Sigma_c(2455) \bar{K}$	seen
$\Gamma_3 \quad \Lambda_c^+ \bar{K}$	not seen
$\Gamma_4 \quad \Xi_c 2\pi$	seen
$\Gamma_5 \quad \Xi_c(2645) \pi$	seen

### $\Xi_c(2980)$ BRANCHING RATIOS

$\Gamma(\Lambda_c^+ \bar{K} \pi) / \Gamma_{\text{total}}$				$\Gamma_1 / \Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<b>seen</b>	AUBERT	08J	BABR	$e^+ e^- \approx \Upsilon(4S)$
<b>seen</b>	CHISTOV	06	BELL	$e^+ e^- \approx \Upsilon(4S)$

$\Gamma(\Sigma_c(2455) \bar{K}) / \Gamma(\Lambda_c^+ \bar{K} \pi)$				$\Gamma_2 / \Gamma_1$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<b><math>0.55 \pm 0.07 \pm 0.13</math></b>	AUBERT	08J	BABR	$e^+ e^- \approx \Upsilon(4S)$

$\Gamma(\Xi_c(2645) \pi) / \Gamma_{\text{total}}$				$\Gamma_5 / \Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<b>seen</b>	LESIAK	08	BELL	$e^+ e^- \approx \Upsilon(4S)$

### $\Xi_c(2980)$ REFERENCES

AUBERT	08J	PR D77 012002	B. Aubert <i>et al.</i>	(BABAR Collab.)
LESIAK	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.)