

**$\Omega_c(2770)^0$**  $I(J^P) = 0(\frac{3}{2}^+)$  Status: \*\*\*

The natural assignment is that this goes with the  $\Sigma_c(2520)$  and  $\Xi_c(2645)$  to complete the lowest mass  $J^P = \frac{3}{2}^+$  SU(3) sextet, part of the SU(4) 20-plet that includes the  $\Delta(1232)$ . But  $J$  and  $P$  have not been measured.

 **$\Omega_c(2770)^0$  MASS**

The mass is obtained from the mass-difference measurement that follows.

VALUE (MeV)	DOCUMENT ID
<b>2766.0<sup>+0.9</sup><sub>-1.0</sub> OUR FIT</b>	

 **$\Omega_c(2770)^0 - \Omega_c^0$  MASS DIFFERENCE**

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
<b>70.7<sup>+0.8</sup><sub>-0.9</sub> OUR FIT</b>				
<b>70.7<sup>+0.8</sup><sub>-1.0</sub> OUR AVERAGE</b>				
70.7 $\pm$ 0.9 <sup>+0.1</sup> <sub>-0.9</sub>	54 $\pm$ 9	SOLOVIEVA 09	BELL	$\Omega_c^0\gamma$ in $e^+e^- \rightarrow \gamma(4S)$
70.8 $\pm$ 1.0 $\pm$ 1.1	105 $\pm$ 22	AUBERT,BE 06I	BABR	$e^+e^- \approx \gamma(4S)$

 **$\Omega_c(2770)^0$  DECAY MODES**

The  $\Omega_c(2770)^0 - \Omega_c^0$  mass difference is too small for any strong decay to occur.

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad \Omega_c^0\gamma$	presumably 100%

 **$\Omega_c(2770)^0$  REFERENCES**

SOLOVIEVA 09	PL B672 1	E. Solovieva <i>et al.</i>	(BELLE Collab.)
AUBERT,BE 06I	PRL 97 232001	B. Aubert <i>et al.</i>	(BABAR Collab.)