

$\Omega_c(3000)^0$

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

$\Omega_c(3000)^0$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
3000.46±0.25 OUR AVERAGE				
3000.44±0.07 ^{+0.07} _{-0.13} ±0.23	8.8k	¹ AAIJ	23AS LHCB	pp at 7, 8, 13 TeV
3000.7 ±1.0 ±0.2	38	YELTON	18B BELL	e^+e^- at $\Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2999.2 ±0.9 ±0.9 ^{+0.19} _{-0.22}	24	² AAIJ	21AC LHCB	pp at 7, 8, 13 TeV
3000.4 ±0.2 ±0.1	1.3k	³ AAIJ	17AH LHCB	pp at 7, 8, 13 TeV

¹ The third uncertainty is due to the uncertainty in the Ξ_c^+ mass, taken to be the PDG 22 fit result 2467.71 ± 0.23 MeV.

² Measured via $\Omega_b^- \rightarrow \Omega_c^{*0} \pi^- \rightarrow \Xi_c^+ K^- \pi^-$. The third uncertainty is due to the uncertainty in the Ξ_c^+ mass.

³ See AAIJ 23AS

$\Omega_c(3000)^0$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
3.83±0.23^{+1.59}_{-0.29}	8.8k	AAIJ	23AS LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
4.8 ±2.1 ±2.5	24	AAIJ	21AC LHCB	pp at 7, 8, 13 TeV
4.5 ±0.6 ±0.3	1.3k	¹ AAIJ	17AH LHCB	pp at 7, 8, 13 TeV

¹ See AAIJ 23AS.

$\Omega_c(3000)^0$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad \Xi_c^+ K^-$	seen

$\Omega_c(3000)^0$ BRANCHING RATIOS

$\Gamma(\Xi_c^+ K^-)/\Gamma_{\text{total}}$				Γ_1/Γ
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
seen	8.8k	AAIJ	23AS LHCB	pp at 7, 8, 13 TeV
seen	24	¹ AAIJ	21AC LHCB	pp at 7, 8, 13 TeV
seen	38	² YELTON	18B BELL	e^+e^- at $\Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
seen	1.3k	^{3,4} AAIJ	17AH LHCB	pp at 7, 8, 13 TeV

¹AAIJ 21AC report a significance of 6.2 σ .
²YELTON 18B report a significance of 3.9 σ
³AAIJ 17AH report a significance of 20.4 σ .
⁴See AAIJ 23AS.

$\Omega_c(3000)^0$ REFERENCES

AAIJ	23AS	PRL 131 131902	R. Aaij <i>et al.</i>	(LHCb Collab.)
PDG	22	PTEP 2022 083C01	R.L. Workman <i>et al.</i>	(PDG Collab.)
AAIJ	21AC	PR D104 L091102	R. Aaij <i>et al.</i>	(LHCb Collab.)
YELTON	18B	PR D97 051102	J. Yelton <i>et al.</i>	(BELLE Collab.)
AAIJ	17AH	PRL 118 182001	R. Aaij <i>et al.</i>	(LHCb Collab.)
