

$\Omega_c(3090)^0$ $I(J^P) = ?(??)$ Status: *** $\Omega_c(3090)^0$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
3090.15 ± 0.26 OUR AVERAGE				
3090.16 ± 0.11 ^{+0.06} _{-0.10} ± 0.23	17k	¹ AAIJ	23AS LHCb	pp at 7, 8, 13 TeV
3091.0 ± 1.1 ± 1.0 ^{+0.19} _{-0.22}	41	² AAIJ	21AC LHCb	pp at 7, 8, 13 TeV
3089.3 ± 1.2 ± 0.2	87	YELTON	18B BELL	e^+e^- at $\Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
3090.2 ± 0.3 ± 0.5	2.0k	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.

 $\Omega_c(3090)^0$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
8.48 ± 0.44^{+0.61}_{-1.62}				
7.4 ± 3.1 ± 2.8	41	AAIJ	21AC LHCb	pp at 7, 8, 13 TeV
8.7 ± 1.0 ± 0.8	2.0k	¹ AAIJ	17AH LHCb	pp at 7, 8, 13 TeV

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

¹ See AAIJ 23AS.

 $\Omega_c(3090)^0$ DECAY MODES

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

 $\Omega_c(3090)^0$ BRANCHING RATIOS

$\Gamma(\Xi_c^+ K^-)/\Gamma_{\text{total}}$	VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	Γ_1/Γ
seen		17k	AAIJ	23AS LHCb	pp at 7, 8, 13 TeV	
seen		41	¹ AAIJ	21AC LHCb	pp at 7, 8, 13 TeV	
seen		87	YELTON	18B BELL	e^+e^- at $\Upsilon(4S)$	
• • • We do not use the following data for averages, fits, limits, etc. • • •						
seen		2.0k	^{2,3} AAIJ	17AH LHCb	pp at 7, 8, 13 TeV	

¹ AAIJ 21AC report a significance of 7.8σ .

² AAIJ 17AH report a significance of 21.1σ .

³ See AAIJ 23AS.

$\Omega_c(3090)^0$ 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.)
