

$\Omega_c(3120)^0$

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

$\Omega_c(3120)^0$ MASS

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
$3118.98 \pm 0.12^{+0.09}_{-0.23} \pm 0.23$	3.7k	¹ AAIJ	23AS LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$3119.1 \pm 0.3 \pm 0.9 \pm 0.3$	480	^{2,3} 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 The third error is the uncertainty on the Ξ_c^+ mass. (AAIJ 17AH gave $^{+0.3}_{-0.5}$ MeV here, but as of 2018 it is ± 0.3 .)				
³ See AAIJ 23AS.				

$\Omega_c(3120)^0$ WIDTH

VALUE (MeV)	CL%	EVTs	DOCUMENT ID	TECN	COMMENT
<2.5	95	3.7k	¹ AAIJ	23AS LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.6	95	480	² AAIJ	17AH LHCB	pp at 7, 8, 13 TeV
¹ AAIJ 23AS also report a central value of $0.60 \pm 0.63^{+0.90}_{-1.05}$.					
² See AAIJ 23AS.					

$\Omega_c(3120)^0$ DECAY MODES

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

$\Omega_c(3120)^0$ BRANCHING RATIOS

$\Gamma(\Xi_c^+ K^-)/\Gamma_{\text{total}}$					Γ_1/Γ
<u>VALUE</u>	<u>EVTs</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
seen	3.7k	AAIJ	23AS LHCB	pp at 7, 8, 13 TeV	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
seen	480	^{1,2} AAIJ	17AH LHCB	pp at 7, 8, 13 TeV	
¹ AAIJ 17AH report a significance of 10.4 σ .					
² See AAIJ 23AS.					

$\Omega_c(3120)^0$ 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	17AH	PRL 118 182001	R. Aaij <i>et al.</i>	(LHCb Collab.)