$\Omega_c(3120)^0$

$I(J^P) = ?(?^?)$ 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)
Γ_1	$\Xi_c^+ K^-$	seen

$\Omega_c(3120)^0$ BRANCHING RATIOS

$\Gamma(\Xi_c^+ K^-)/\Gamma_{total}$ **Γ_1/Γ**

VALUE	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
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 *et al.*	(LHCb Collab.)
PDG	22	PTEP 2022 083C01	R.L. Workman *et al.*	(PDG Collab.)
AAIJ	17AH	PRL 118 182001	R. Aaij *et al.*	(LHCb Collab.)