NODE=B177

$\Omega_c(3120)^0$

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

$\Omega_c(3120)^0$ MASS

NODE=B177M

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
3118.98 ± 0.12 $^{+0.09}_{-0.23}$ ± 0.23	3.7k	[1] AAIJ	23AS	LHCB	pp at 7, 8, 13 TeV

NODE=B177M

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

3119.1 ±0.3 ±0.9 ±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.

NODE=B177M;LINKAGE=B

[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.)

NODE=B177M;LINKAGE=A

[3] See AAIJ 23AS.

NODE=B177M;LINKAGE=C

$\Omega_c(3120)^0$ WIDTH

NODE=B177W

VALUE (MeV)	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<2.5	95	3.7k	[1] AAIJ	23AS	LHCB	pp at 7, 8, 13 TeV

NODE=B177W

• • • 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 $0.60 \pm 0.63^{+0.90}_{-1.05}$.

NODE=B177W;LINKAGE=A

[2] See AAIJ 23AS.

NODE=B177W;LINKAGE=B

$\Omega_c(3120)^0$ DECAY MODES

NODE=B177215;NODE=B177

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\Xi_c^+ K^-$	seen

DESIG=1

$\Omega_c(3120)^0$ BRANCHING RATIOS

NODE=B177225

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

NODE=B177R01

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
seen	3.7k	AAIJ	23AS	LHCB	pp at 7, 8, 13 TeV

NODE=B177R01

• • • 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.

NODE=B177R01;LINKAGE=A

[2] See AAIJ 23AS.

NODE=B177R01;LINKAGE=B

$\Omega_c(3120)^0$ REFERENCES

NODE=B177

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.)

REFID=62449
REFID=61634
REFID=57925