$\Omega_c(3065)^0$

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

AAIJ 21AC rejects $J = 1/2$ hypothesis at 3.6 σ.

$\Omega_c(3065)^0$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
3065.58±0.21 OUR AVERAGE					
$3065.63 \pm 0.06 \pm 0.06 \pm 0.23$	15k	[1] AAIJ	23AS	LHCB	pp at 7, 8, 13 TeV
$3065.9 \pm 0.4 \pm 0.4\ ^{+0.19}_{-0.22}$	51	[2] AAIJ	21AC	LHCB	pp at 7, 8, 13 TeV
$3064.9 \pm 0.6 \pm 0.2$	82	YELTON	18B	BELL	e^+e^- at $\Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$3065.6 \pm 0.1 \pm 0.3$	1.74k	[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 $\Omega_b^- \to \Omega_c^{**0}\pi^- \to \Xi_c^+ K^-\pi^-$. The third uncertainty is due to the uncertainty in the Ξ_c^+ mass.

[3] See AAIJ 23AS.

$\Omega_c(3065)^0$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
3.4 $^{+0.7}_{-0.8}$ OUR AVERAGE Error includes scale factor of 1.7.					
$3.79 \pm 0.20\ ^{+0.38}_{-0.47}$	15k	AAIJ	23AS	LHCB	pp at 7, 8, 13 TeV
$1.7 \pm 1.0 \pm 0.5$	51	AAIJ	21AC	LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$3.5 \pm 0.4 \pm 0.2$	1.74k	[1] AAIJ	17AH	LHCB	pp at 7, 8, 13 TeV

[1] See AAIJ 23AS.

$\Omega_c(3065)^0$ DECAY MODES

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

$\Omega_c(3065)^0$ BRANCHING RATIOS

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

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
seen	15k	AAIJ	23AS	LHCB	pp at 7, 8, 13 TeV
seen	51	[1] AAIJ	21AC	LHCB	pp at 7, 8, 13 TeV
seen	82	YELTON	18B	BELL	e^+e^- at $\Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
seen	1.74k	[2,3] AAIJ	17AH	LHCB	pp at 7, 8, 13 TeV

[1] AAIJ 21AC report a significance of 11.9 σ.
[2] AAIJ 17AH report a significance of 23.9 σ.
[3] See AAIJ 23AS.

$\Omega_c(3065)^0$ 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	21AC	PR D104 L091102	R. Aaij *et al.*	(LHCb Collab.)
YELTON	18B	PR D97 051102	J. Yelton *et al.*	(BELLE Collab.)
AAIJ	17AH	PRL 118 182001	R. Aaij *et al.*	(LHCb Collab.)