

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

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>3090.15 ± 0.26 OUR AVERAGE</b>				
3090.16 ± 0.11 <sup>+0.06</sup> <sub>-0.10</sub> ± 0.23	17k	<sup>1</sup> AAIJ	23AS LHCB	$pp$ at 7, 8, 13 TeV
3091.0 ± 1.1 ± 1.0 <sup>+0.19</sup> <sub>-0.22</sub>	41	<sup>2</sup> AAIJ	21AC LHCB	$pp$ at 7, 8, 13 TeV
3089.3 ± 1.2 ± 0.2	87	YELTON	18B BELL	$e^+e^-$ at $\Upsilon(4S)$
3090.2 ± 0.3 ± 0.5	2.0k	<sup>3</sup> AAIJ	17AH LHCB	$pp$ at 7, 8, 13 TeV

<sup>1</sup> The third uncertainty is due to the uncertainty in the  $\Xi_c^+$  mass, taken to be the PDG 22 fit result  $2467.71 \pm 0.23$  MeV.

<sup>2</sup> Measured via  $\Omega_b^- \rightarrow \Omega_c^{*0} \pi^- \rightarrow \Xi_c^+ K^- \pi^-$ . The third uncertainty is due to the uncertainty in the  $\Xi_c^+$  mass.

<sup>3</sup> See AAIJ 23AS.

 $\Omega_c(3090)^0$  WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>8.48 ± 0.44<sup>+0.61</sup><sub>-1.62</sub></b>	17k	AAIJ	23AS LHCB	$pp$ at 7, 8, 13 TeV
7.4 ± 3.1 ± 2.8	41	AAIJ	21AC LHCB	$pp$ at 7, 8, 13 TeV
8.7 ± 1.0 ± 0.8	2.0k	<sup>1</sup> AAIJ	17AH LHCB	$pp$ at 7, 8, 13 TeV

<sup>1</sup> See AAIJ 23AS.

 $\Omega_c(3090)^0$  DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad \Xi_c^+ K^-$	seen

 $\Omega_c(3090)^0$  BRANCHING RATIOS

$\Gamma(\Xi_c^+ K^-)/\Gamma_{\text{total}}$	VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	$\Gamma_1/\Gamma$
seen		17k	AAIJ	23AS LHCB	$pp$ at 7, 8, 13 TeV	
seen		41	<sup>1</sup> AAIJ	21AC LHCB	$pp$ at 7, 8, 13 TeV	
seen		87	YELTON	18B BELL	$e^+e^-$ at $\Upsilon(4S)$	
seen		2.0k	<sup>2,3</sup> AAIJ	17AH LHCB	$pp$ at 7, 8, 13 TeV	

<sup>1</sup> AAIJ 21AC report a significance of 7.8  $\sigma$ .

<sup>2</sup> AAIJ 17AH report a significance of 21.1  $\sigma$ .

<sup>3</sup> 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.)

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