

# $\Omega_c(3050)^0$

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

AAIJ 21AC rejects  $J = 1/2$  hypothesis at  $2.2 \sigma$ .

## $\Omega_c(3050)^0$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>3050.19 ± 0.13 OUR AVERAGE</b>				
3050.1 ± 0.3 ± 0.2 <sup>+0.19</sup> <sub>-0.22</sub>	33	<sup>1</sup> AAIJ	21AC LHCB	$pp$ at 7, 8, 13 TeV
3050.2 ± 0.4 ± 0.2	28	YELTON	18B BELLE	$e^+e^-$ at $\Upsilon(4S)$
3050.2 ± 0.1 ± 0.1	970	AAIJ	17AH LHCB	$pp$ at 7, 8, 13 TeV

<sup>1</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.

## $\Omega_c(3050)^0$ WIDTH

VALUE (MeV)	CL%	DOCUMENT ID	TECN	COMMENT
<b>&lt;1.2</b>	95	AAIJ	17AH LHCB	$pp$ at 7, 8, 13 TeV
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
<1.6	95	AAIJ	21AC LHCB	$pp$ at 7, 8, 13 TeV

## $\Omega_c(3050)^0$ DECAY MODES

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

## $\Omega_c(3050)^0$ BRANCHING RATIOS

$\Gamma(\Xi_c^+ K^-)/\Gamma_{\text{total}}$	EVTS	DOCUMENT ID	TECN	COMMENT	$\Gamma_1/\Gamma$
seen	33	<sup>1</sup> AAIJ	21AC LHCB	$pp$ at 7, 8, 13 TeV	
seen	28	<sup>2</sup> YELTON	18B BELLE	$e^+e^-$ at $\Upsilon(4S)$	
<b>seen</b>	970	<sup>3</sup> AAIJ	17AH LHCB	$pp$ at 7, 8, 13 TeV	

- <sup>1</sup> AAIJ 21AC report a significance of  $9.9 \sigma$ .  
<sup>2</sup> YELTON 18B report a significance of  $4.6 \sigma$   
<sup>3</sup> AAIJ 17AH report a significance of  $20.4 \sigma$ .

## $\Omega_c(3050)^0$ REFERENCES

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.)