

$\Xi_b(5945)^0$ 

$J^P = \frac{3}{2}^+$

Status: \*\*\*

Quantum numbers are based on quark model expectations.

 $\Xi_b(5945)^0$  MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>5948.9 ± 0.8 ± 1.4</b>	<sup>1</sup> CHATRCHYAN 12S	CMS	$pp$ at 7 TeV, 5.3 fb <sup>-1</sup>
<sup>1</sup> CHATRCHYAN 12S measures $m(\Xi_b(5945)^0) - m(\Xi_b^-) - m(\pi^+) = 14.84 \pm 0.74 \pm 0.28$ MeV. We have adjusted the measurement to our best values of $m(\Xi_b^-) = 5794.5 \pm 1.4$ MeV, $m(\pi^+) = 139.57018 \pm 0.00035$ MeV. Our first error is their experiment's error and our second error is the systematic error from using our best values.			

 $\Xi_b(5945)^0$  WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>2.1 ± 1.7</b>	<sup>2</sup> CHATRCHYAN 12S	CMS	$pp$ at 7 TeV, 5.3 fb <sup>-1</sup>
<sup>2</sup> Systematic uncertainty not evaluated.			

 $\Xi_b(5945)^0$  DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad \Xi_b^- \pi^+$	seen

 $\Xi_b(5945)^0$  BRANCHING RATIOS

$\Gamma(\Xi_b^- \pi^+)/\Gamma_{\text{total}}$	DOCUMENT ID	TECN	COMMENT	$\Gamma_1/\Gamma$
<b>seen</b>	CHATRCHYAN 12S	CMS	$pp$ at 7 TeV, 5.3 fb <sup>-1</sup>	

 $\Xi_b(5945)^0$  REFERENCESCHATRCHYAN 12S PRL 108 252002 S. Chatrchyan *et al.* (CMS Collab.)