

$\Lambda_b(5912)^0$ 

$$J^P = \frac{1}{2}^-$$

Status: \*\*\*

Quantum numbers are based on quark model expectations.

### $\Lambda_b(5912)^0$ MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>5912.18 ± 0.13 ± 0.17</b>	1,2 AAIJ	12AL LHCB	<i>pp</i> at 7 TeV

<sup>1</sup> Observed in  $\Lambda_b(5912)^0 \rightarrow \Lambda_b^0 \pi^+ \pi^-$  decays with  $17.6 \pm 4.8$  candidates with a significance of 5.2 sigma.

<sup>2</sup> AAIJ 12AL measures  $m(\Lambda_b(5912)^0) - m(\Lambda_b^0) = 292.60 \pm 0.12 \pm 0.04$  MeV. We have adjusted the measurement to our best value of  $m(\Lambda_b^0) = 5619.58 \pm 0.17$  MeV. Our first error is their experiment's error and our second error is the systematic error from using our best values.

### $\Lambda_b(5912)^0$ WIDTH

VALUE (MeV)	CL%	DOCUMENT ID	TECN	COMMENT
<b>&lt;0.66</b>	90	AAIJ	12AL LHCB	<i>pp</i> at 7 TeV

### $\Lambda_b(5912)^0$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad \Lambda_b^0 \pi^+ \pi^-$	seen

### $\Lambda_b(5912)^0$ BRANCHING RATIOS

$\Gamma(\Lambda_b^0 \pi^+ \pi^-)/\Gamma_{\text{total}}$	DOCUMENT ID	TECN	COMMENT	$\Gamma_1/\Gamma$
<b>seen</b>	AAIJ	12AL LHCB	<i>pp</i> at 7 TeV	

### $\Lambda_b(5912)^0$ REFERENCES

AAIJ      12AL PRL 109 172003      R. Aaij *et al.*      (LHCb Collab.)