

$\Lambda_b(6152)^0$ 

$$J^P = \frac{5}{2}^+$$

Status: \*\*\*

Quantum numbers are based on quark model expectations.

### $\Lambda_b(6152)^0$ MASS

#### $\Lambda_b(6152)^0$ MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>6152.5 ± 0.4 OUR AVERAGE</b>			
6152.7 ± 1.2 ± 0.2	<sup>1</sup> SIRUNYAN	20K CMS	$pp$ at 13 TeV
6152.51 ± 0.26 ± 0.27	<sup>2</sup> AAIJ	19AJ LHCB	$pp$ at 7, 8, 13 TeV

<sup>1</sup> SIRUNYAN 20K measures  $m(\Lambda_b(6152)^0) - m(\Lambda_b^0) = 533.1 \pm 1.1 \pm 0.4$  MeV. We have adjusted the measurement to our best value of  $m(\Lambda_b^0) = 5619.60 \pm 0.17$  MeV. Our first error is their experiment's error and our second error is the systematic error from using our best values.

<sup>2</sup> Observed in  $\Lambda_b^0 \pi^+ \pi^-$  mode.

#### $m_{\Lambda_b(6152)^0} - m_{\Lambda_b^0}$

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>532.89 ± 0.26 ± 0.10</b>	<sup>1</sup> AAIJ	19AJ LHCB	$pp$ at 7, 8, 13 TeV

<sup>1</sup> Observed in  $\Lambda_b^0 \pi^+ \pi^-$  mode.

#### $m_{\Lambda_b(6152)^0} - m_{\Lambda_b(6146)^0}$

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>6.34 ± 0.32 ± 0.02</b>	AAIJ	19AJ LHCB	$pp$ at 7, 8, 13 TeV

### $\Lambda_b(6152)^0$ WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>2.1 ± 0.8 ± 0.3</b>	<sup>1</sup> AAIJ	19AJ LHCB	$pp$ at 7, 8, 13 TeV

<sup>1</sup> Observed in  $\Lambda_b^0 \pi^+ \pi^-$  mode.

### $\Lambda_b(6152)^0$ DECAY MODES

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

### $\Lambda_b(6152)^0$ BRANCHING RATIOS

$\Gamma(\Lambda_b^0 \pi^+ \pi^-)/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$		
VALUE	DOCUMENT ID	TECN	COMMENT
seen	SIRUNYAN	20K LHCB	$pp$ at 13 TeV
<b>seen</b>	AAIJ	19AJ LHCB	$pp$ at 7, 8, 13 TeV

## $\Lambda_b(6152)^0$ REFERENCES

SIRUNYAN	20K	PL B803 135345	A.M. Sirunyan <i>et al.</i>	(CMS Collab.)
AAIJ	19AJ	PRL 123 152001	R. Aaij <i>et al.</i>	(LHCb Collab.)

---