

$\Lambda_b(5920)^0$

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

Status: ***

Quantum numbers are based on quark model expectations.

$\Lambda_b(5920)^0$ MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
5919.8 ± 0.1 ± 0.6	1,2 AAIJ	12AL LHCB	<i>pp</i> at 7 TeV

¹ Observed in $\Lambda_b(5920)^0 \rightarrow \Lambda_b^0 \pi^+ \pi^-$ decays with 52.5 ± 8.1 candidates with a significance of 10.2 sigma.

² AAIJ 12AL measures $m(\Lambda_b(5920)^0) - m(\Lambda_b^0) = 300.40 \pm 0.08 \pm 0.04$ MeV. We have adjusted the measurement to our best value of $m(\Lambda_b^0) = 5619.4 \pm 0.6$ MeV. Our first error is their experiment's error and our second error is the systematic error from using our best values.

$\Lambda_b(5920)^0$ WIDTH

VALUE (MeV)	CL%	DOCUMENT ID	TECN	COMMENT
<0.63	90	AAIJ	12AL LHCB	<i>pp</i> at 7 TeV

$\Lambda_b(5920)^0$ DECAY MODES

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

$\Lambda_b(5920)^0$ BRANCHING RATIOS

$\Gamma(\Lambda_b^0 \pi^+ \pi^-)/\Gamma_{\text{total}}$	DOCUMENT ID	TECN	COMMENT	Γ_1/Γ
seen	AAIJ	12AL LHCB	<i>pp</i> at 7 TeV	

$\Lambda_b(5920)^0$ REFERENCES

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