

$\Xi_b(6087)^0$
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$I(J^P) = \frac{1}{2}(\frac{3}{2}^-)$  Status: \*\*\*  
 $J, P$  need confirmation.

NODE=B207

### $\Xi_b(6087)^0$ MASS

NODE=B207M

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>6087.2±0.2±0.5</b>	1,2 AAIJ	23AU LHCB	$pp$ at 7, 8, 13 TeV
<sup>1</sup> Observed in $\Xi_b^0 \pi^+ \pi^-$ channel with $\Xi_b^0 \rightarrow \Xi_c^+ \pi^-$ and $\Xi_b^0 \rightarrow \Xi_c^+ \pi^- \pi^+ \pi^-$ and $\Xi_c^+ \rightarrow p K^- \pi^+$ . Measured as mass difference, listed separately. <sup>2</sup> AAIJ 23AU measures $m(\Xi_b(6087)^0) - m(\Xi_b^0) - 2m(\pi^\pm) = 16.20 \pm 0.20 \pm 0.06$ MeV. We have adjusted the measurement to our best values of $m(\Xi_b^0) = 5791.9 \pm 0.5$ MeV, $m(\pi^\pm) = 139.57039 \pm 0.00018$ MeV. Our first error is their experiment's error and our second error is the systematic error from using our best values.			

NODE=B207M

OCCUR=2

NODE=B207M;LINKAGE=A

NODE=B207M;LINKAGE=C

### $\Xi_b(6087)^0$ WIDTH

NODE=B207W

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>2.43±0.51±0.10</b>	<sup>1</sup> AAIJ	23AU LHCB	$pp$ at 7, 8, 13 TeV
<sup>1</sup> Observed in $\Xi_b^0 \pi^+ \pi^-$ channel with $\Xi_b^0 \rightarrow \Xi_c^+ \pi^-$ and $\Xi_b^0 \rightarrow \Xi_c^+ \pi^- \pi^+ \pi^-$ and $\Xi_c^+ \rightarrow p K^- \pi^+$			

NODE=B207W

NODE=B207W;LINKAGE=A

### $\Xi_b(6087)^0$ DECAY MODES

NODE=B207215;NODE=B207

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

DESIG=1

### $\Xi_b(6087)^0$ BRANCHING RATIOS

NODE=B207225

$\Gamma(\Xi_b^0 \pi^+ \pi^-)/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$		
VALUE	DOCUMENT ID	TECN	COMMENT
<b>seen</b>	AAIJ	23AU LHCB	$pp$ at 7, 8, 13 TeV

NODE=B207R00

NODE=B207R00

### $\Xi_b(6087)^0$ REFERENCES

NODE=B207

AAIJ	23AU PRL 131 171901	R. Aaij <i>et al.</i>	(LHCb Collab.)
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REFID=62459