

$\Xi_b(6095)^0$ $I(J^P) = \frac{1}{2}(??)$ Status: *** $\Xi_b(6095)^0$ MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
6095.1±0.2±0.4	1,2 AAIJ	23AU LHCB	pp at 7, 8, 13 TeV

¹ 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.

² AAIJ 23AU measures $m(\Xi_b(6095)^0) - m(\Xi_b^0) - 2m(\pi^\pm) = 24.32 \pm 0.15 \pm 0.03$ MeV. We have adjusted the measurement to our best values of $m(\Xi_b^0) = 5791.7 \pm 0.4$ 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.

 $\Xi_b(6095)^0$ WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
0.50±0.33±0.11	¹ AAIJ	23AU LHCB	pp at 7, 8, 13 TeV

¹ 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 $\Xi_c^+ \rightarrow p K^- \pi^+$

 $\Xi_b(6095)^0$ DECAY MODES

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

 $\Xi_b(6095)^0$ BRANCHING RATIOS

$\Gamma(\Xi_b^0 \pi^+ \pi^-)/\Gamma_{\text{total}}$	Γ_1/Γ		
VALUE	DOCUMENT ID	TECN	COMMENT
seen	AAIJ	23AU LHCB	pp at 7, 8, 13 TeV

 $\Xi_b(6095)^0$ REFERENCES

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