

$\Sigma_b(6097)^+$

$J^P = ?^?$

Status: ***

$\Sigma_b(6097)^+$ MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
6095.8±1.7±0.4	¹ AAIJ	19A	LHCB pp at 7, 8 TeV
¹ Measured using fully reconstructed $\Lambda_b^0 \rightarrow \Lambda_c^+ \pi^-$ and $\Lambda_c^+ \rightarrow p K^- \pi^+$ decays.			

$m_{\Sigma_b(6097)^+} - m_{\Sigma_b(6097)^-}$

VALUE	DOCUMENT ID	TECN	COMMENT
-2.2 +−2.4 +−0.3 MeV	¹ AAIJ	19A	LHCB pp at 7, 8 TeV
¹ Measured using fully reconstructed $\Lambda_b^0 \rightarrow \Lambda_c^+ \pi^-$ and $\Lambda_c^+ \rightarrow p K^- \pi^+$ decays.			

$\Sigma_b(6097)^+$ WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
31.0±5.5±0.7	¹ AAIJ	19A	LHCB pp at 7, 8 TeV
¹ Measured using fully reconstructed $\Lambda_b^0 \rightarrow \Lambda_c^+ \pi^-$ and $\Lambda_c^+ \rightarrow p K^- \pi^+$ decays.			

$\Sigma_b(6097)^+$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad \Lambda_b \pi^+ \times B(b \rightarrow \Sigma_b(6097)^+)$	seen

$\Sigma_b(6097)^+$ BRANCHING RATIOS

$\Gamma(\Lambda_b \pi^+ \times B(b \rightarrow \Sigma_b(6097)^+))/\Gamma_{\text{total}}$				Γ_1/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
seen	AAIJ	19A	LHCB	pp at 7, 8 TeV

$\Sigma_b(6097)^+$ REFERENCES

AAIJ	19A	PRL 122 012001	R. Aaij <i>et al.</i>	(LHCb Collab.)
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