

$\Xi'_b(5935)^-$ 

$J^P = \frac{1}{2}^+$

Status: \*\*\*

 $\Xi'_b(5935)^-$  MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>5935.02±0.02±0.05</b>	<sup>1</sup> AAIJ	15H LHCB	$pp$ at 7, 8 TeV

<sup>1</sup> Not independent of the mass difference measurement below. Observed in  $\Xi_b^0 \pi^-$  channel with  $\Xi_b^0 \rightarrow \Xi_c^+ \pi^-$  and  $\Xi_c^+ \rightarrow p K^- \pi^+$ .

$m_{\Xi'_b(5935)^-} - m_{\Xi_b^0} - m_{\pi^-}$

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>3.653±0.018±0.006</b>	<sup>2</sup> AAIJ	15H LHCB	$pp$ at 7, 8 TeV

<sup>2</sup> Observed in  $\Xi_b^0 \pi^-$  channel with  $\Xi_b^0 \rightarrow \Xi_c^+ \pi^-$  and  $\Xi_c^+ \rightarrow p K^- \pi^+$ .

 $\Xi'_b(5935)^-$  WIDTH

VALUE (MeV)	CL%	DOCUMENT ID	TECN	COMMENT
<b>&lt;0.08</b>	95	<sup>3</sup> AAIJ	15H LHCB	$pp$ at 7, 8 TeV

<sup>3</sup> Observed in  $\Xi_b^0 \pi^-$  channel with  $\Xi_b^0 \rightarrow \Xi_c^+ \pi^-$  and  $\Xi_c^+ \rightarrow p K^- \pi^+$ .

 $\Xi'_b(5935)^-$  DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad \Xi_b^0 \pi^- \times B(\bar{b} \rightarrow \Xi'_b(5935)^-)/B(\bar{b} \rightarrow \Xi_b^0)$	(11.8±1.8) %

 $\Xi'_b(5935)^-$  BRANCHING RATIOS

$\Gamma(\Xi_b^0 \pi^- \times B(\bar{b} \rightarrow \Xi'_b(5935)^-)/B(\bar{b} \rightarrow \Xi_b^0))/\Gamma_{\text{total}} \quad \Gamma_1/\Gamma$

VALUE	DOCUMENT ID	TECN	COMMENT
<b>0.118±0.017±0.007</b>	<sup>4</sup> AAIJ	15H LHCB	$pp$ at 7, 8 TeV

<sup>4</sup> Observed in  $\Xi_b^0 \pi^-$  channel with  $\Xi_b^0 \rightarrow \Xi_c^+ \pi^-$  and  $\Xi_c^+ \rightarrow p K^- \pi^+$ .

 $\Xi'_b(5935)^-$  REFERENCES

AAIJ 15H PRL 114 062004 R. Aaij et al. (LHCb Collab.)