

$\Xi_b(5955)^-$ 

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

Status: \*\*\*

 $\Xi_b(5955)^-$  MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>5955.33 ± 0.12 ± 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  $\Xi_c^+ \rightarrow p K^- \pi^+$ .

$$m_{\Xi_b(5955)^-} - m_{\Xi_b^0} - m_{\pi^-}$$

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>23.96 ± 0.12 ± 0.06</b>	<sup>1</sup> AAIJ	15H LHCB	$pp$ at 7, 8 TeV

<sup>1</sup> Observed in  $\Xi_b^0 \pi^-$  channel with  $\Xi_b^0 \rightarrow \Xi_c^+ \pi^-$  and  $\Xi_c^+ \rightarrow p K^- \pi^+$ .

 $\Xi_b(5955)^-$  WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>1.65 ± 0.31 ± 0.10</b>	<sup>1</sup> AAIJ	15H LHCB	$pp$ at 7, 8 TeV

<sup>1</sup> Observed in  $\Xi_b^0 \pi^-$  channel with  $\Xi_b^0 \rightarrow \Xi_c^+ \pi^-$  and  $\Xi_c^+ \rightarrow p K^- \pi^+$ .

 $\Xi_b(5955)^-$  DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad \Xi_b^0 \pi^- \times B(\bar{b} \rightarrow \Xi_b^*(5955)^-)/B(\bar{b} \rightarrow \Xi_b^0)$	(20.7 ± 3.5) %

 $\Xi_b(5955)^-$  BRANCHING RATIOS

$$\Gamma(\Xi_b^0 \pi^- \times B(\bar{b} \rightarrow \Xi_b^*(5955)^-)/B(\bar{b} \rightarrow \Xi_b^0))/\Gamma_{\text{total}} \quad \Gamma_1/\Gamma$$

VALUE	DOCUMENT ID	TECN	COMMENT
<b>0.207 ± 0.032 ± 0.015</b>	<sup>1</sup> AAIJ	15H LHCB	$pp$ at 7, 8 TeV

<sup>1</sup> Observed in  $\Xi_b^0 \pi^-$  channel with  $\Xi_b^0 \rightarrow \Xi_c^+ \pi^-$  and  $\Xi_c^+ \rightarrow p K^- \pi^+$ .

 $\Xi_b(5955)^-$  REFERENCES

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