

$\Xi_b(6100)^-$ $J^P = \frac{3}{2}^-$ Status: ***
 J, P need confirmation. $\Xi_b(6100)^-$ MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
6099.8 ± 0.4 OUR AVERAGE			
6099.7 ± 0.1 ± 0.4	^{1,2} AAIJ	23AU LHCB	pp at 7, 8, 13 TeV
6100.3 ± 0.2 ± 0.4	^{3,4} SIRUNYAN	21F CMS	pp at 13 TeV
¹ Observed in $\Xi_b^- \pi^+ \pi^-$ channel with $\Xi_b^- \rightarrow \Xi_c^0 \pi^-$ and $\Xi_b^- \rightarrow \Xi_c^0 \pi^- \pi^+ \pi^-$ and $\Xi_c^0 \rightarrow p K^- K^- \pi^+$.			
² AAIJ 23AU measures $m(\Xi_b(6100)^-) - m(\Xi_b^-) - 2m(\pi^\pm) = 23.60 \pm 0.11 \pm 0.12$ MeV. We have adjusted the measurement to our best values of $m(\Xi_b^-) = 5797.0 \pm 0.4$ 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.			
³ Observed in $\Xi_b(6100)^- \rightarrow \Xi_b^- \pi^+ \pi^-$ decays.			
⁴ SIRUNYAN 21F measures $m(\Xi_b(6100)^-) - m(\Xi_b^-) - 2m(\pi^\pm) = 24.14 \pm 0.22 \pm 0.09$ MeV. We have adjusted the measurement to our best values of $m(\Xi_b^-) = 5797.0 \pm 0.4$ 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.			

 $\Xi_b(6100)^-$ WIDTH

VALUE (MeV)	CL%	DOCUMENT ID	TECN	COMMENT
0.94 ± 0.30 ± 0.08		¹ AAIJ	23AU LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<1.9	95	² SIRUNYAN	21F CMS	pp at 13 TeV
¹ Observed in $\Xi_b^- \pi^+ \pi^-$ channel with $\Xi_b^- \rightarrow \Xi_c^0 \pi^-$ and $\Xi_b^- \rightarrow \Xi_c^0 \pi^- \pi^+ \pi^-$ and $\Xi_c^0 \rightarrow p K^- K^- \pi^+$				
² Observed in $\Xi_b(6100)^- \rightarrow \Xi_b^- \pi^+ \pi^-$ decays.				

 $\Xi_b(6100)^-$ DECAY MODES

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

 $\Xi_b(6100)^-$ BRANCHING RATIOS

$\Gamma(\Xi_b^- \pi^+ \pi^-)/\Gamma_{\text{total}}$					Γ_1/Γ
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	
seen		AAIJ	23AU LHCB	pp at 7, 8, 13 TeV	
seen	60	SIRUNYAN	21F CMS	pp at 13 TeV	

$\Xi_b(6100)^-$ REFERENCES

AAIJ	23AU	PRL 131	171901	R. Aaij <i>et al.</i>	(LHCb Collab.)
SIRUNYAN	21F	PRL 126	252003	A.M. Sirunyan <i>et al.</i>	(CMS Collab.)
