

$B_1(5721)^+$ $I(J^P) = \frac{1}{2}(1^+)$ Status: **
 I, J, P need confirmation.

Quantum numbers shown are quark-model predictions.

 $B_1(5721)^+$ MASSOUR FIT uses $m_{B^{*0}}$ and $m_{B_1^+} - m_{B^{*0}}$ to determine $m_{B_1(5721)^+}$.

VALUE (MeV)	DOCUMENT ID
$5725.9^{+2.5}_{-2.7}$ OUR FIT	

 $m_{B_1^+} - m_{B^{*0}}$

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
$401.2^{+2.4}_{-2.7}$ OUR FIT				
$401.2^{+2.4}_{-2.7}$ OUR AVERAGE				

400.5 ± 1.8 ± 3.1 8K ¹ AAIJ 15AB LHCb $p\bar{p}$ at 7, 8 TeV402 ± 3 $^{+1}_{-3}$ ² AALTONEN 14i CDF $p\bar{p}$ at 1.96 TeV¹ AAIJ 15AB reports $[m_{B_1^+} - m_{B^0}] - (m_{B^{*0}} - m_{B^0}) - m_{\pi^+} = 260.9 \pm 1.8 \pm 3.1$ MeV which we adjust by the π^+ mass and assume $(m_{B^{*0}} - m_{B^0}) = (m_{B^{*+}} - m_{B^+}) = 45.01 \pm 0.30 \pm 0.23$ MeV. The masses inside the square brackets were measured for each candidate event.² AALTONEN 14i reports $m_{B_1(5721)^+} - m_{B^{*0}} - m_{\pi^+} = 262 \pm 3^{+1}_{-3}$ MeV which we adjusted by the π^+ mass. **$B_1(5721)^+$ WIDTH**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
31 ± 6 OUR AVERAGE				Error includes scale factor of 1.1.
29.1 ± 3.6 ± 4.3	8K	AAIJ	15AB LHCb	$p\bar{p}$ at 7, 8 TeV
49 $^{+12}_{-10}$ $^{+2}_{-13}$		AALTONEN	14i CDF	$p\bar{p}$ at 1.96 TeV

 $B_1(5721)^+$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
Γ_1 $B^{*0} \pi^+$	seen

$B_1(5721)^+$ BRANCHING RATIOS

$\Gamma(B^{*0}\pi^+)/\Gamma_{\text{total}}$					Γ_1/Γ
<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
seen	8K	AAIJ	15AB LHCb	$p\bar{p}$ at 7, 8 TeV	
seen		AALTONEN	14i CDF	$p\bar{p}$ at 1.96 TeV	

$B_1(5721)^+$ REFERENCES

AAIJ	15AB	JHEP 1504 024	R. Aaij <i>et al.</i>	(LHCb Collab.)
AALTONEN	14i	PR D90 012013	T. Aaltonen <i>et al.</i>	(CDF Collab.)