

$B_1(5721)^0$

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

Quantum numbers shown are quark-model predictions.

$B_1(5721)^0$ MASS

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

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>
5723.4 ± 2.0 OUR FIT	Error includes scale factor of 1.1.

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

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
--------------------	--------------------	-------------	----------------

444.3 ± 2.0 OUR FIT Error includes scale factor of 1.1.

444.2 ± 2.3 OUR AVERAGE Error includes scale factor of 1.3.

446.2 ^{+1.9+1.0} -2.1-1.2	¹ AALTONEN	09D	CDF	$\rho\bar{p}$ at 1.96 TeV
441.5 ± 2.4 ± 1.3	ABAZOV	07T	D0	$\rho\bar{p}$ at 1.96 TeV

¹ Observed in $B_1^0 \rightarrow B^{*+} \pi^-$.

$B_1(5721)^0$ DECAY MODES

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

$B_1(5721)^0$ BRANCHING RATIOS

$\Gamma(B^{*+} \pi^-)/\Gamma_{\text{total}}$	Γ_1/Γ
--	-------------------

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
dominant	AALTONEN	09D	CDF $\rho\bar{p}$ at 1.96 TeV
dominant	² ABAZOV	07T	D0 $\rho\bar{p}$ at 1.96 TeV

² Observed in $B_1^0 \rightarrow B^{*+} \pi^-$ with $B^{*+} \rightarrow B^+ \gamma$ and $B^+ \rightarrow J/\psi \pi^+$.

$B_1(5721)^0$ REFERENCES

AALTONEN	09D	PRL 102 102003	T. Aaltonen <i>et al.</i>	(CDF Collab.)
ABAZOV	07T	PRL 99 172001	V.M. Abazov <i>et al.</i>	(D0 Collab.)