

**$B_1(5721)^0$**

$I(J^P) = \frac{1}{2}(1^+)$  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>
<b>5723.5 ± 2.0 OUR FIT</b>	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>
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**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.

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

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

### $B_1(5721)^0$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $B^{*+} \pi^-$	dominant

### $B_1(5721)^0$ BRANCHING RATIOS

$\Gamma(B^{*+} \pi^-)/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$
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<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
dominant	AALTONEN	09D	CDF $\rho\bar{p}$ at 1.96 TeV
<b>dominant</b>	<sup>2</sup> ABAZOV	07T	D0 $\rho\bar{p}$ at 1.96 TeV

<sup>2</sup> 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.)