

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

Quantum numbers shown are quark-model predictions.

NODE=M218

NODE=M218

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

NODE=M218M

NODE=M218M

NODE=M218M

VALUE (MeV)

DOCUMENT ID

 $5725.9^{+2.5}_{-2.7}$  OUR FIT $m_{B_1^+} - m_{B^{*0}}$ 

NODE=M218DM

NODE=M218DM

VALUE (MeV)

EVTS

DOCUMENT ID

TECN

COMMENT

 $401.2^{+2.4}_{-2.7}$  OUR FIT $401.2^{+2.4}_{-2.7}$  OUR AVERAGE $400.5 \pm 1.8 \pm 3.1$  8K <sup>1</sup> AAIJ 15AB LHCb  $pp$  at 7, 8 TeV $402 \pm 3 \pm 1_{-3}$  <sup>2</sup> AALTONEN 14l CDF  $p\bar{p}$  at 1.96 TeV

<sup>1</sup> 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  $\pi^+$  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.

<sup>2</sup> AALTONEN 14l reports  $m_{B_1(5721)^+} - m_{B^{*0}} - m_{\pi^+} = 262 \pm 3 \pm 1_{-3}$  MeV which we adjusted by the  $\pi^+$  mass.

NODE=M218DM;LINKAGE=A

NODE=M218DM;LINKAGE=AA

 $B_1(5721)^+$  WIDTH

NODE=M218W

NODE=M218W

VALUE (MeV)

EVTS

DOCUMENT ID

TECN

COMMENT

 $31 \pm 6$  OUR AVERAGE Error includes scale factor of 1.1. $29.1 \pm 3.6 \pm 4.3$  8K AAIJ 15AB LHCb  $pp$  at 7, 8 TeV $49 \pm 12 \pm 2_{-10 \ -13}$  AALTONEN 14l CDF  $p\bar{p}$  at 1.96 TeV $B_1(5721)^+$  DECAY MODES

NODE=M218215;NODE=M218

| Mode                          | Fraction ( $\Gamma_i/\Gamma$ ) |
|-------------------------------|--------------------------------|
| $\Gamma_1 \quad B^{*0} \pi^+$ | seen                           |

DESIG=1

 $B_1(5721)^+$  BRANCHING RATIOS

NODE=M218220

 $\Gamma(B^{*0} \pi^+)/\Gamma_{\text{total}}$  $\Gamma_1/\Gamma$ 

VALUE

EVTS

DOCUMENT ID

TECN

COMMENT

seen 8K AAIJ 15AB LHCb  $pp$  at 7, 8 TeVseen AALTONEN 14l CDF  $p\bar{p}$  at 1.96 TeV

NODE=M218R01

NODE=M218R01

 $B_1(5721)^+$  REFERENCES

NODE=M218

AAIJ 15AB JHEP 1504 024  
AALTONEN 14l PR D90 012013R. Aaij *et al.*  
T. Aaltonen *et al.*(LHCb Collab.)  
(CDF Collab.)

REFID=56628

REFID=56029