NODE=M187

# $B_{s1}(5830)^0$

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

NODE=M187

Quantum numbers shown are quark-model predictions.

## $B_{s1}(5830)^0$ MASS

NODE=M187205

NODE=M187M

| VALUE (MeV) | DOCUMENT ID | | TECN | COMMENT |
|---|---|---|---|---|
| **5829.4±0.7** | [1] AALTONEN | 08K | CDF | $p\overline{p}$ at 1.96 TeV |

NODE=M187M;LINKAGE=AA

[1] Uses two-body decays into $K^-$ and $B^+$ mesons reconstructed as $B^+ \rightarrow J/\psi K^+$, $J/\psi \rightarrow \mu^+\mu^-$ or $B^+ \rightarrow \overline{D}^0\pi^+$, $\overline{D}^0 \rightarrow K^+\pi^-$.

## $m_{B^0_{s1}} - m_{B^{*+}}$

NODE=M187210

NODE=M187DM

| VALUE (MeV) | DOCUMENT ID | | TECN | COMMENT |
|---|---|---|---|---|
| **504.41±0.21±0.14** | [2] AALTONEN | 08K | CDF | $p\overline{p}$ at 1.96 TeV |

NODE=M187DM;LINKAGE=AA

[2] Uses two-body decays into $K^-$ and $B^+$ mesons reconstructed as $B^+ \rightarrow J/\psi K^+$, $J/\psi \rightarrow \mu^+\mu^-$ or $B^+ \rightarrow \overline{D}^0\pi^+$, $\overline{D}^0 \rightarrow K^+\pi^-$.

## $B_{s1}(5830)^0$ DECAY MODES

NODE=M187215;NODE=M187

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

DESIG=1

## $B_{s1}(5830)^0$ BRANCHING RATIOS

NODE=M187220

### $\Gamma(B^{*+}K^-)/\Gamma_{total}$ $\Gamma_1/\Gamma$

NODE=M187R01
NODE=M187R01

| VALUE | DOCUMENT ID | | TECN | COMMENT |
|---|---|---|---|---|
| **dominant** | AALTONEN | 08K | CDF | $p\overline{p}$ at 1.96 TeV |

## $B_{s1}(5830)^0$ REFERENCES

NODE=M187

AALTONEN 08K PRL 100 082001 T. Aaltonen *et al.* (CDF Collab.)

REFID=52235