

$B_{s1}(5830)^0$

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

Quantum numbers shown are quark-model predictions.

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

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
5829.4 ± 0.7	¹ AALTONEN 08K	CDF	$p\bar{p}$ at 1.96 TeV

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

$m_{B_{s1}^0} - m_{B^{*+}}$

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
504.41 ± 0.21 ± 0.14	² AALTONEN 08K	CDF	$p\bar{p}$ at 1.96 TeV

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

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

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad B^{*+} K^-$	dominant

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

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

VALUE	DOCUMENT ID	TECN	COMMENT
dominant	AALTONEN 08K	CDF	$p\bar{p}$ at 1.96 TeV

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

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