$B_{s1}(5830)^0$

$I(J^P) = 0(1^+)$ Status: ***
I, J, P need confirmation.

Quantum numbers shown are quark-model predictions.

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

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
5828.63±0.27 OUR FIT				
5828.40±0.04±0.41	[1] AAIJ	13O	LHCB	pp at 7 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
5829.4 ±0.7	[2] AALTONEN	08K	CDF	Repl. by AALTONEN 14I

[1] Uses $B_{s1}(5830)^0 \to B^{*+}K^-$ decay.
[2] Uses two-body decays into K^- and B^+ mesons reconstructed as $B^+ \to J/\psi K^+$, $J/\psi \to \mu^+\mu^-$ or $B^+ \to \overline{D}^0\pi^+$, $\overline{D}^0 \to K^+\pi^-$.

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

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
503.98±0.18 OUR FIT				
504.03±0.12±0.15	[3] AALTONEN	14I	CDF	$p\overline{p}$ at 1.96 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
504.41±0.21±0.14	[4] AALTONEN	08K	CDF	Repl. by AALTONEN 14I

[3] AALTONEN 14I reports $m_{B_{s1}(5830)^0} - m_{B^{*+}} - m_{K^-} = 10.35 \pm 0.12 \pm 0.15$ MeV which we adjusted by the K^- mass.
[4] Uses two-body decays into K^- and B^+ mesons reconstructed as $B^+ \to J/\psi K^+$, $J/\psi \to \mu^+\mu^-$ or $B^+ \to \overline{D}^0\pi^+$, $\overline{D}^0 \to K^+\pi^-$.

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

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
0.5±0.3±0.3	AALTONEN	14I	CDF	$p\overline{p}$ at 1.96 TeV

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

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

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

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

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

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

AALTONEN	14I	PR D90 012013	T. Aaltonen *et al.*	(CDF Collab.)
AAIJ	13O	PRL 110 151803	R. Aaij *et al.*	(LHCb Collab.)
AALTONEN	08K	PRL 100 082001	T. Aaltonen *et al.*	(CDF Collab.)