$B^*_{s2}(5840)^0$

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

Quantum numbers shown are quark-model predictions.

$B^*_{s2}(5840)^0$ MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
5839.7±0.6 OUR AVERAGE				
5839.7±0.7	[1] AALTONEN	08K	CDF	$p\overline{p}$ at 1.96 TeV
5839.6±1.1±0.7	[2] ABAZOV	08E	D0	$p\overline{p}$ at 1.96 TeV

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

[2] Observed in $B^{*0}_{s2} \to B^+K^-$. Measured production rate of B^{*0}_{s2} relative to B^+ to be $(1.15 \pm 0.23 \pm 0.13)\%$.

$m_{B^{*0}_{s2}} - m_{B^0_{s1}}$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
10.5±0.6	[3] AALTONEN	08K	CDF	$p\overline{p}$ at 1.96 TeV

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

$B^*_{s2}(5840)^0$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	B^+K^-	dominant

$B^*_{s2}(5840)^0$ 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
dominant	[4] ABAZOV	08E	D0	$p\overline{p}$ at 1.96 TeV

[4] Measured production rate of B^{*0}_{s2} relative to B^+ to be $(1.15 \pm 0.23 \pm 0.13)\%$.

$B^*_{s2}(5840)^0$ REFERENCES

AALTONEN	08K	PRL 100 082001	T. Aaltonen *et al.*	(CDF Collab.)
ABAZOV	08E	PRL 100 082002	V.M. Abazov *et al.*	(D0 Collab.)