



$$I(J^P) = 0(1^-)$$

OMITTED FROM SUMMARY TABLE

$I, J, P$  need confirmation. Quantum numbers shown are quark-model predictions.

### $B_s^*$ MASS

From mass difference below and the  $B_s^0$  mass.

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>5412.8 ± 1.7 OUR FIT</b>	Error includes scale factor of 1.2.		
<b>5411.7 ± 1.6 ± 0.6</b>	<sup>1</sup> AQUINES	06	CLEO $e^+e^- \rightarrow \Upsilon(5S)$
• • •	We do not use the following data for averages, fits, limits, etc. • • •		
5414 ± 1 ± 3	<sup>2</sup> BONVICINI	06	CLEO $e^+e^- \rightarrow \Upsilon(5S)$
<sup>1</sup>	Utilized the beam constrained invariant mass peak positions for $B^*$ and $B_s^*$ to extract the measurement.		
<sup>2</sup>	Uses 14 candidates consistent with $B_s$ decays into final states with a $J/\psi$ and a $D_s^{(*)-}$ .		

### $m_{B_s^*} - m_{B_s}$

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>45.3 ± 1.4 OUR FIT</b>			
<b>46.1 ± 1.5 OUR AVERAGE</b>			
45.7 ± 1.7 ± 0.7	<sup>3</sup> AQUINES	06	CLEO $e^+e^- \rightarrow \Upsilon(5S)$
47.0 ± 2.6	<sup>4</sup> LEE-FRANZINI	90	CSB2 $e^+e^- \rightarrow \Upsilon(5S)$
• • •	We do not use the following data for averages, fits, limits, etc. • • •		
48 ± 1 ± 3	<sup>5</sup> BONVICINI	06	CLEO Repl. by AQUINES 06
<sup>3</sup>	Utilized the beam constrained invariant mass peak positions for $B^*$ and $B_s^*$ to extract the measurement.		
<sup>4</sup>	LEE-FRANZINI 90 measure $46.7 \pm 0.4 \pm 0.2$ MeV for an admixture of $B^0, B^+,$ and $B_s$ . They use the shape of the photon line to separate the above value for $B_s$ .		
<sup>5</sup>	Uses 14 candidates consistent with $B_s$ decays into final states with a $J/\psi$ and a $D_s^{(*)-}$ .		

### $|(m_{B_s^*} - m_{B_s}) - (m_{B^*} - m_B)|$

VALUE (MeV)	CL%	DOCUMENT ID	TECN	COMMENT
<6	95	ABREU	95R	DLPH $E_{cm}^{ee} = 88-94$ GeV

### $B_s^*$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad B_s \gamma$	dominant

## $B_s^*$ REFERENCES

AQUINES	06	PRL 96 152001	O. Aquines <i>et al.</i>	(CLEO Collab.)
BONVICINI	06	PRL 96 022002	G. Bonvicini <i>et al.</i>	(CLEO Collab.)
ABREU	95R	ZPHY C68 353	P. Abreu <i>et al.</i>	(DELPHI Collab.)
LEE-FRANZINI	90	PRL 65 2947	J. Lee-Franzini <i>et al.</i>	(CUSB II Collab.)

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