$D_{s1}(2460)^{\pm}$

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

$D_{s1}(2460)^{\pm}$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
2458.9±0.9 OUR FIT	Error includes scale factor of 1.1.				
2458.0±1.0±1.0	195	AUBERT	04E	BABR	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2458.9±1.5	112	[1] AUBERT,B	04S	BABR	$B \to D_{s1}(2460)^+ \overline{D}^{(*)}$
2461.1±1.6	139	[2] AUBERT,B	04S	BABR	$B \to D_{s1}(2460)^+ \overline{D}^{(*)}$
2456.5±1.3±1.3	126	[3,4] MIKAMI	04	BELL	10.6 e^+e^-
2459.5±1.3±2.0	152	[5,6] MIKAMI	04	BELL	10.6 e^+e^-
2459.9±0.9±1.6	60	[5,6] MIKAMI	04	BELL	10.6 e^+e^-
2459.2±1.6±2.0	57	KROKOVNY	03B	BELL	10.6 e^+e^-

[1] Systematic errors not evaluated. From the decay to $D_s^{*+}\pi^0$.

[2] Systematic errors not evaluated. From the decay to $D_s^+\gamma$.

[3] Not independent of the corresponding $m_{D_{s1}(2460)^{\pm}} - m_{D_s^{*\pm}}$.

[4] Using $m_{D_s^{*+}} = 2112.4 \pm 0.7$ MeV.

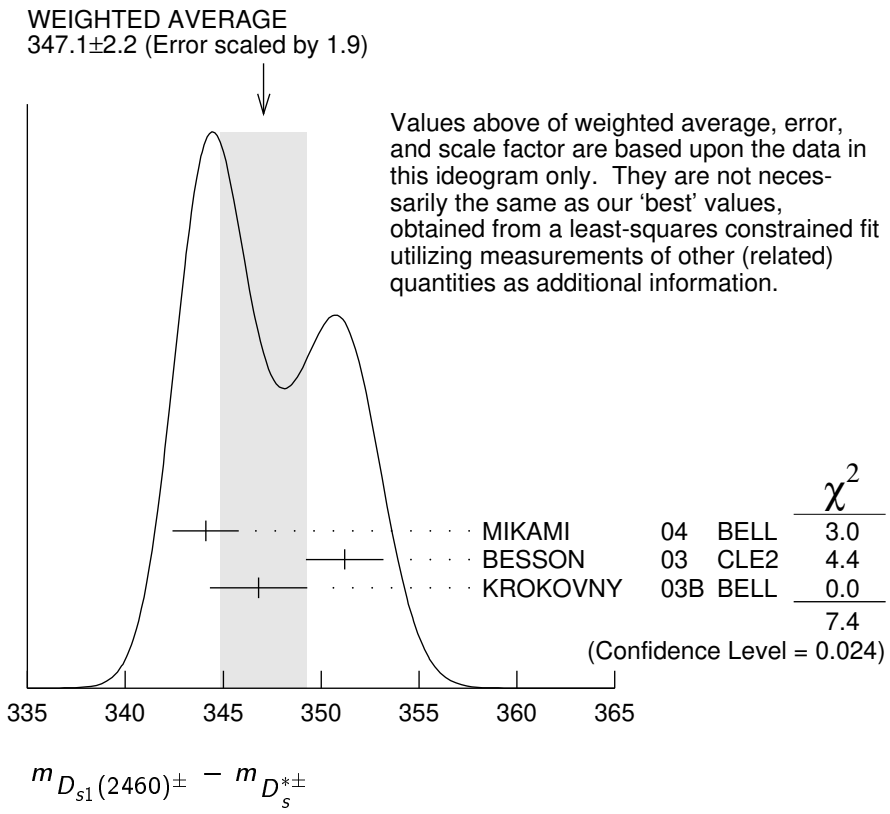
[5] Not independent of the corresponding $m_{D_{s1}(2460)^{\pm}} - m_{D_s^{\pm}}$.

[6] Using $m_{D_s^+} = 1968.5 \pm 0.6$ MeV.

$m_{D_{s1}(2460)^{\pm}} - m_{D_s^{*\pm}}$

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
346.9±1.0 OUR FIT	Error includes scale factor of 1.2.				
347.1±2.2 OUR AVERAGE	Error includes scale factor of 1.9. See the ideogram below.				
344.1±1.3±1.1	126	MIKAMI	04	BELL	10.6 e^+e^-
351.2±1.7±1.0	41	BESSON	03	CLE2	10.6 e^+e^-
346.8±1.6±1.9	57	[7] KROKOVNY	03B	BELL	10.6 e^+e^-

[7] Recalculated by us using $m_{D_s^{*+}} = 2112.4 \pm 0.7$ MeV.



$m_{D_{s1}(2460)^\pm} - m_{D_s^\pm}$

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
490.7±0.9 OUR FIT Error includes scale factor of 1.2.					
491.3±1.4 OUR AVERAGE					
491.0±1.3±1.9	152	[8] MIKAMI	04	BELL	10.6 e^+e^-
491.4±0.9±1.5	60	[9] MIKAMI	04	BELL	10.6 e^+e^-

[8] From the decay to $D_s^\pm\gamma$.

[9] From the decay to $D_s^\pm\pi^+\pi^-$.

$D_{s1}(2460)^\pm$ WIDTH

VALUE (MeV)	*CL%*	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
< 5.5	90	126	MIKAMI	04	BELL	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<10		195	AUBERT	04E	BABR	10.6 e^+e^-
< 7	90	41	BESSON	03	CLE2	10.6 e^+e^-

$D_{s1}(2460)^+$ DECAY MODES

$D_{s1}(2460)^-$ modes are charge conjugates of the modes below.

	Mode
Γ_1	$D_s^{*+}\pi^0$
Γ_2	$D_s^+\gamma$
Γ_3	$D_s^+\pi^+\pi^-$
Γ_4	$D_s^{*+}\gamma$
Γ_5	$D_{s0}^*(2317)^+\gamma$

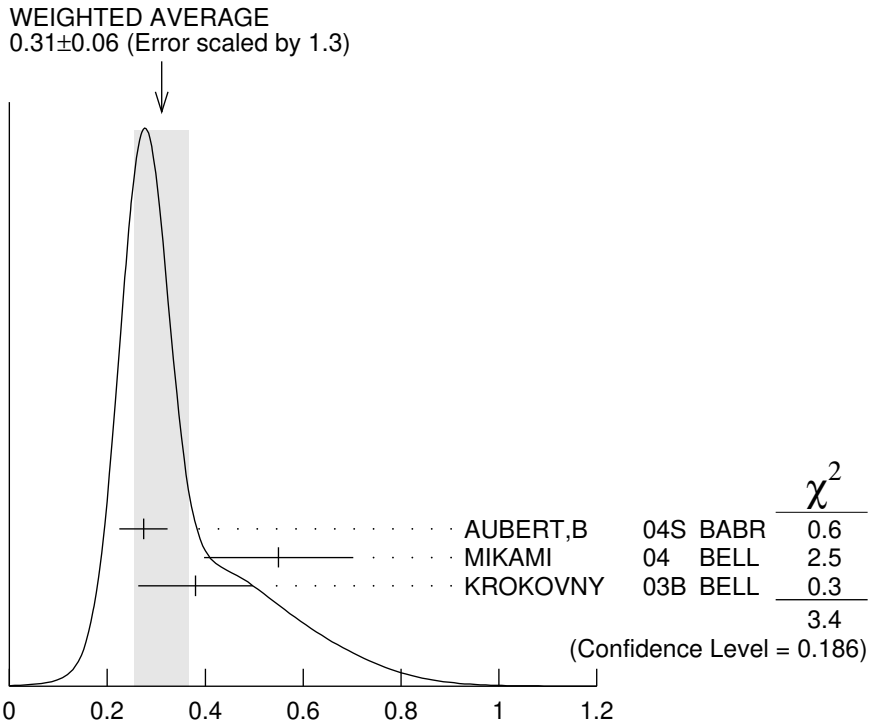
$D_{s1}(2460)^\pm$ BRANCHING RATIOS

$\Gamma(D_s^{*+}\pi^0)/\Gamma_{total}$ Γ_1/Γ

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
seen	41	BESSON	03	CLE2	10.6 e^+e^-

$\Gamma(D_s^+\gamma)/\Gamma(D_s^{*+}\pi^0)$ Γ_2/Γ_1

VALUE	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
0.31 ±0.06 OUR AVERAGE Error includes scale factor of 1.3. See the ideogram below.						
0.274±0.045±0.020		251	AUBERT,B	04S	BABR	$B \to D_{s1}(2460)^+\overline{D}^{(*)}$
0.55 ±0.13 ±0.08		152	MIKAMI	04	BELL	10.6 e^+e^-
0.38 ±0.11 ±0.04		38	KROKOVNY	03B	BELL	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •						
< 0.49	90		BESSON	03	CLE2	10.6 e^+e^-



$\Gamma\left(D_s^+\gamma\right)/\Gamma\left(D_s^{*+}\pi^0\right)$ Γ_2/Γ_1

$\Gamma(D_s^+\pi^+\pi^-)/\Gamma(D_s^{*+}\pi^0)$ **Γ_3/Γ_1**

VALUE	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
0.14±0.04±0.02		60	MIKAMI	04	BELL	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<0.08	90		BESSON	03	CLE2	10.6 e^+e^-

$\Gamma(D_s^{*+}\gamma)/\Gamma(D_s^{*+}\pi^0)$ **Γ_4/Γ_1**

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.16	90	BESSON	03	CLE2	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.31	90	MIKAMI	04	BELL	10.6 e^+e^-

$\Gamma(D_{s0}^*(2317)^+\gamma)/\Gamma(D_s^{*+}\pi^0)$ **Γ_5/Γ_1**

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.22	95	AUBERT	04E	BABR	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.58	90	BESSON	03	CLE2	10.6 e^+e^-

$D_{s1}(2460)^\pm$ REFERENCES

AUBERT	04E	PR D69 031101R	B. Aubert *et al.*	(BABAR Collab.)
AUBERT,B	04S	PRL 93 181801	B. Aubert *et al.*	(BABAR Collab.)
MIKAMI	04	PRL 92 012002	Y. Mikami *et al.*	(BELLE Collab.)
BESSON	03	PR D68 032002	D. Besson *et al.*	(CLEO Collab.)
KROKOVNY	03B	PRL 91 262002	P. Krokovny *et al.*	(BELLE Collab.)

OTHER RELATED PAPERS

VIJANDE	06	PR D73 034002	J. Vijande, F. Fernandez, A. Valcarce	
WEI	06	PR D73 034004	W. Wei, P.-Z. Huang, S.-L. Zhu	
BICUDO	05	NP A748 537	P. Bicudo	
CLOSE	05C	PR D72 094004	F.E. Close, E.S. Swanson	(OXFTP)
COLANGELO	05	PR D72 074004	P. Colangelo, F. De Fazio, A. Ozpineci	
GODFREY	05	PR D72 054029	S. Godfrey	
MAIANI	05	PR D71 014028	L. Maiani *et al.*	
YAMADA	05	PR C72 065202	Y. Yamada *et al.*	
ZHANG	05C	PR D72 017902	A. Zhang	
BROWDER	04	PL B578 365	T.E. Browder, S. Pakvasa, A.A. Petrov	
CHEN	04A	PR D69 054002	C.-H. Chen	
CHEN	04C	PRL 93 232001	Y.-Q. Chen, X.-Q. Li	
COHEN	04	PL B578 359	T.D. Cohen *et al.*	
DMITRASINO...	04	PR D70 096011	V. Dmitrasinovic	
FAYYAZUDDIN	04	PR D69 114008	Fayyazuddin, Riazuddin	
KOLOMEITSEV	04	PL B582 39	E.E. Kolomeitsev, M.F.M. Lutz	
SADZIKOWSKI	04	PL B579 39	M. Sadzikowski	
VANBEVEREN	04B	EPJ C32 493	E. van Beveren, G. Rupp	
AUBERT	03G	PRL 90 242001	B. Aubert *et al.*	(BaBar Collab.)
BARDEEN	03	PR D68 054024	W.A. Bardeen *et al.*	
BARNES	03	PR D68 054006	T. Barnes *et al.*	
CAHN	03	PR D68 037502	R.N. Cahn, J.D. Jackson	
COLANGELO	03B	PL B570 180	P. Colangelo, F. De Fazio	
DATTA	03C	PL B572 164	A. Datta, P.J. O'Donnell	