$D_{sJ}^*(2317)^\pm$

$I(J^P) = 0(0^+)$
J, P need confirmation.

J^P is natural, low mass and decay angular distribution consistent with 0^+.

$D_{sJ}^*(2317)^\pm$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
2317.3±0.6 OUR FIT					
2317.3±0.4±0.8	1022	[1] AUBERT	04E	BABR	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2317.2±1.3	88	[2] AUBERT,B	04S	BABR	$B \to D_{sJ}^{(*)}(2317)^+ \overline{D}^{(*)}$
2317.2±0.5±0.9	761	[3] MIKAMI	04	BELL	10.6 e^+e^-
2316.8±0.4±3.0	1267±53	[3,4] AUBERT	03G	BABR	10.6 e^+e^-
2317.6±1.3	273±33	[3,5] AUBERT	03G	BABR	10.6 e^+e^-
2319.8±2.1±2.0	24	[3] KROKOVNY	03B	BELL	10.6 e^+e^-

[1] Supersedes AUBERT 03G.
[2] Systematic errors not evaluated.
[3] Not independent of the corresponding $m_{D_{sJ}^*(2317)} - m_{D_s}$.
[4] From $D_s^+ \to K^+K^-\pi^+$ decay.
[5] From $D_s^+ \to K^+K^-\pi^+\pi^0$ decay.

$m_{D_{sJ}^*(2317)^\pm} - m_{D_s^\pm}$

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
349.1±0.6 OUR FIT					
349.2±0.7 OUR AVERAGE					
348.7±0.5±0.7	761	MIKAMI	04	BELL	10.6 e^+e^-
350.0±1.2±1.0	135	BESSON	03	CLE2	10.6 e^+e^-
351.3±2.1±1.9	24	[6] KROKOVNY	03B	BELL	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
349.6±0.4±3.0	1267	[7,8] AUBERT	03G	BABR	10.6 e^+e^-
350.2±1.3	273	[9,10] AUBERT	03G	BABR	10.6 e^+e^-

[6] Recalculated by us using $m_{D_s^+} = 1968.5 \pm 0.6$ MeV.
[7] From $D_s^+ \to K^+K^-\pi^+$ decay.
[8] Recalculated by us using $m_{D_s^+} = 1967.20 \pm 0.03$ MeV.
[9] From $D_s^+ \to K^+K^-\pi^+\pi^0$ decay.
[10] Recalculated by us using $m_{D_s^+} = 1967.4 \pm 0.2$ MeV. Systematic errors not estimated.

$D_{sJ}^*(2317)^\pm$ WIDTH

VALUE (MeV)	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
< 4.6	90	761	MIKAMI	04	BELL	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<10			AUBERT	03G	BABR	10.6 e^+e^-
< 7	90	135	BESSON	03	CLE2	10.6 e^+e^-

$D_{sJ}^*(2317)^\pm$ DECAY MODES

$D_{sJ}^*(2317)^-$ modes are charge conjugates of modes below.

	Mode
Γ_1	$D_s^+\pi^0$
Γ_2	$D_s^+\gamma$
Γ_3	$D_s^*(2112)^+\gamma$
Γ_4	$D_s^+\gamma\gamma$
Γ_5	$D_s^*(2112)^+\pi^0$
Γ_6	$D_s^+\pi^+\pi^-$

$D_{sJ}^*(2317)^\pm$ 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	1540 ± 62	AUBERT	03G	BABR	10.6 e^+e^-

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

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.05	90	MIKAMI	04	BELL	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.052	90	BESSON	03	CLE2	10.6 e^+e^-

$\Gamma(D_s^*(2112)^+\gamma)/\Gamma(D_s^+\pi^0)$ Γ_3/Γ_1

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.059	90	BESSON	03	CLE2	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.18	90	MIKAMI	04	BELL	10.6 e^+e^-

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

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
not seen	AUBERT	03G	BABR	10.6 e^+e^-

$\Gamma(D_s^*(2112)^+\pi^0)/\Gamma(D_s^+\pi^0)$ Γ_5/Γ_1

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.11	90	BESSON	03	CLE2	10.6 e^+e^-

$\Gamma(D_s^+\pi^+\pi^-)/\Gamma(D_s^+\pi^0)$ Γ_6/Γ_1

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.004	90	MIKAMI	04	BELL	10.6 e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.019	90	BESSON	03	CLE2	10.6 e^+e^-

$D_{sJ}^*(2317)^\pm$ REFERENCES

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