$D^*_{sJ}(2317)^{\pm}$

$I(J^P) = 0(0^+)$
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*
2317.4±0.9 OUR FIT	Error includes scale factor of 1.1.				
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2317.2±0.5±0.9	761	[1] MIKAMI	04	BELL	10.6 e^+e^-
2316.8±0.4±3.0	1267±53	[1,2] AUBERT	03G	BABR	10.6 e^+e^-
2317.6±1.3	273±33	[1,3] AUBERT	03G	BABR	10.6 e^+e^-
2319.8±2.1±2.0	24	[1] KROKOVNY	03B	BELL	10.6 e^+e^-

[1] Not independent of the corresponding $m_{D^*_{sJ}(2317)} - m_{D_s}$.

[2] From $D_s^+ \rightarrow K^+K^-\pi^+$ decay.

[3] From $D_s^+ \rightarrow K^+K^-\pi^+\pi^0$ decay.

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

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
349.2±0.7 OUR FIT					
349.2±0.7 OUR AVERAGE					
348.7±0.5±0.7	761	MIKAMI	04	BELL	10.6 e^+e^-
349.6±0.4±3.0	1267	[4,5] AUBERT	03G	BABR	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. • • •					
350.2±1.3	273	[7,8] AUBERT	03G	BABR	10.6 e^+e^-

[4] From $D_s^+ \rightarrow K^+K^-\pi^+$ decay.

[5] Recalculated by us using $m_{D_s^+} = 1967.20 \pm 0.03$ MeV.

[6] Recalculated by us using $m_{D_s^+} = 1968.5 \pm 0.6$ MeV.

[7] From $D_s^+ \rightarrow K^+K^-\pi^+\pi^0$ decay.

[8] 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

$\Gamma(D_s^+ \pi^0)/\Gamma_{\text{total}}$ — 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

MIKAMI	04	PRL 92 012002	Y. Mikami *et al.*	(BELLE Collab.)
AUBERT	03G	PRL 90 242001	B. Aubert *et al.*	(BaBar Collab.)
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