

$D_{s0}^*(2317)^\pm$ $I(J^P) = 0(0^+)$
 J, P need confirmation. $D_{s0}^*(2317)^\pm$ 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	$B \rightarrow D_{s0}^{(*)}(2317)^+ \bar{D}^{(*)}$
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 $m_{D_{s0}^*(2317)} - m_{D_s}$.				
⁴ From $D_s^+ \rightarrow K^+ K^- \pi^+$ decay.				
⁵ From $D_s^+ \rightarrow K^+ K^- \pi^+ \pi^0$ decay.				

 $m_{D_{s0}^*(2317)^\pm} - m_{D_s^\pm}$

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

 $D_{s0}^*(2317)^\pm$ 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 $e^+ e^-$

$D_{s0}^*(2317)^\pm$ DECAY MODES $D_{s0}^*(2317)^-$ 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	$D_s^+ \pi^+ \pi^-$

 $D_{s0}^*(2317)^\pm$ 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	$10.6 e^+ e^-$
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$\Gamma(D_s^+ \gamma)/\Gamma(D_s^+ \pi^0)$					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 $10.6 e^+ e^-$

$D_{s0}^*(2317)^\pm$ REFERENCES

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AUBERT,B	04S	PRL 93 181801	B. Aubert <i>et al.</i>	(BABAR Collab.)
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KROKOVNY	03B	PRL 91 262002	P. Krokovny <i>et al.</i>	(BELLE Collab.)

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