

$D_{s1}^*(2700)^\pm$

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

$D_{s1}^*(2700)^+$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2709 ±4 OUR AVERAGE				
2709.2±1.9± 4.5	52k	¹ AAIJ	12AU LHCB	$pp \rightarrow (DK)^+ X$ at 7 TeV
2710 ±2 $\begin{smallmatrix} +12 \\ -7 \end{smallmatrix}$	10.4k	² AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$
2708 ±9 $\begin{smallmatrix} +11 \\ -10 \end{smallmatrix}$	182	BRODZICKA	08 BELL	$B^+ \rightarrow D^0 \bar{D}^0 K^+$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2688 ±4 ± 3		³ AUBERT,BE	06E BABR	10.6 $e^+ e^- \rightarrow DKX$

¹ From the combined fit of the $D^+ K_S^0$ and $D^0 K^+$ modes in the model including the $D_{s2}^*(2573)^+$, $D_{s1}^*(2700)^+$ and spin-0 $D_{sJ}^*(2860)^+$.

² From simultaneous fits to the two DK mass spectra and to the total $D^* K$ mass spectrum.

³ Superseded by AUBERT 09AR.

$D_{s1}^*(2700)^+$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
117 ±13 OUR AVERAGE				
115.8± 7.3±12.1	52k	⁴ AAIJ	12AU LHCB	$pp \rightarrow (DK)^+ X$ at 7 TeV
149 ± 7 $\begin{smallmatrix} +39 \\ -52 \end{smallmatrix}$	10.4k	⁵ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$
108 ±23 $\begin{smallmatrix} +36 \\ -31 \end{smallmatrix}$	182	BRODZICKA	08 BELL	$B^+ \rightarrow D^0 \bar{D}^0 K^+$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
112 ± 7 ±36		⁶ AUBERT,BE	06E BABR	10.6 $e^+ e^- \rightarrow DKX$

⁴ From the combined fit of the $D^+ K_S^0$ and $D^0 K^+$ modes in the model including the $D_{s2}^*(2573)^+$, $D_{s1}^*(2700)^+$ and spin-0 $D_{sJ}^*(2860)^+$.

⁵ From simultaneous fits to the two DK mass spectra and to the total $D^* K$ mass spectrum.

⁶ Superseded by AUBERT 09AR.

$D_{s1}^*(2700)^\pm$ DECAY MODES

Mode
Γ_1 DK
Γ_2 $D^0 K^+$
Γ_3 $D^+ K_S^0$
Γ_4 $D^* K$
Γ_5 $D^{*0} K^+$
Γ_6 $D^{*+} K_S^0$

$D_{s1}^*(2700)^\pm$ BRANCHING RATIOS

$\Gamma(D^* K)/\Gamma(D K)$ Γ_4/Γ_1

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.91±0.13±0.12	10.4k	⁷ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$

⁷ From the average of the corresponding ratios with $D^{(*)0} K^+$ and $D^{(*)+} K_S^0$.

$\Gamma(D^{*0} K^+)/\Gamma(D^0 K^+)$ Γ_5/Γ_2

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
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• • • We do not use the following data for averages, fits, limits, etc. • • •

0.88±0.14±0.14	7716	⁸ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$
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⁸ From the $D^{*0} K^+$ and $D^0 K^+$, where $D^{*0} \rightarrow D^0 \pi^0$.

$\Gamma(D^{*+} K_S^0)/\Gamma(D^+ K_S^0)$ Γ_6/Γ_3

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
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• • • We do not use the following data for averages, fits, limits, etc. • • •

1.14±0.39±0.23	2700	⁹ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$
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⁹ From the $D^{*+} K_S^0$ and $D^+ K_S^0$, where $D^{*+} \rightarrow D^+ \pi^0$.

$D_{s1}^*(2700)^\pm$ REFERENCES

AAIJ	12AU JHEP 1210 151	R. Aaij <i>et al.</i>	(LHCb Collab.)
AUBERT	09AR PR D80 092003	B. Aubert <i>et al.</i>	(BABAR Collab.)
BRODZICKA	08 PRL 100 092001	J. Brodzicka <i>et al.</i>	(BELLE Collab.)
AUBERT,BE	06E PRL 97 222001	B. Aubert <i>et al.</i>	(BABAR Collab.)