

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

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

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

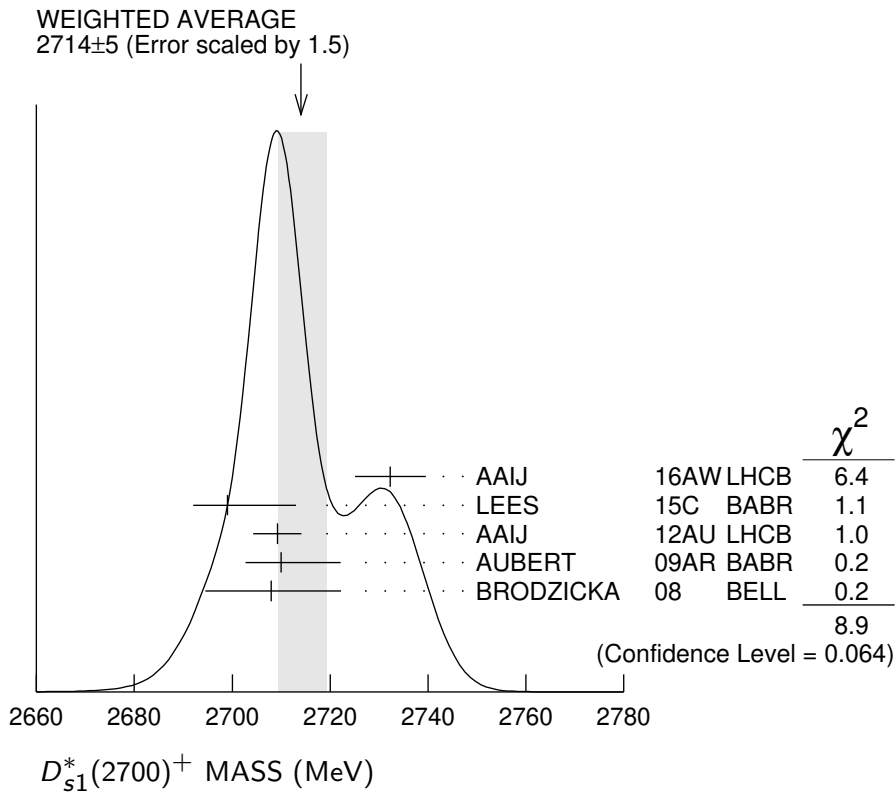
VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2714 ± 5	OUR AVERAGE	Error includes scale factor of 1.5. See the ideogram below.		
2732.3 ± 4.3 ± 5.8	15.7k	AAIJ	16AW LHCB	$pp \rightarrow D^{*+} K_S^0 X$ at 7, 8 TeV
2699 $\begin{smallmatrix} +14 \\ -7 \end{smallmatrix}$		¹ LEES	15c BABR	$B \rightarrow D D^0 K^+$
2709.2 ± 1.9 ± 4.5	52k	² AAIJ	12AU LHCB	$pp \rightarrow (DK)^+ X$ at 7 TeV
2710 ± 2 $\begin{smallmatrix} +12 \\ -7 \end{smallmatrix}$	10.4k	³ 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. • • •				
2694 ± 8 $\begin{smallmatrix} +13 \\ -3 \end{smallmatrix}$		LEES	15c BABR	$B^0 \rightarrow D^- D^0 K^+$
2707 ± 8 ± 8		LEES	15c BABR	$B^+ \rightarrow \bar{D}^0 D^0 K^+$
2688 ± 4 ± 3		⁴ AUBERT, BE	06E BABR	10.6 $e^+ e^- \rightarrow DKX$

¹ From a combined analysis of $B^0 \rightarrow D^- D^0 K^+$ and $B^+ \rightarrow \bar{D}^0 D^0 K^+$.

² 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 $D_{sJ}^*(2860)^+$.

³ From simultaneous fits to the two DK mass spectra and to the total $D^* K$ mass spectrum.

⁴ Superseded by AUBERT 09AR.



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

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
122 ±10 OUR AVERAGE				
136 ±19 ±24	15.7k	AAIJ	16AW LHCb	$pp \rightarrow D^{*+} K_S^0 X$ at 7, 8 TeV
127 $\begin{smallmatrix} +24 \\ -19 \end{smallmatrix}$		¹ LEES	15c BABR	$B \rightarrow D D^0 K^+$
115.8± 7.3±12.1	52k	² AAIJ	12AU LHCb	$pp \rightarrow (DK)^+ X$ at 7 TeV
149 ± 7 $\begin{smallmatrix} +39 \\ -52 \end{smallmatrix}$	10.4k	³ 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. • • •

145 ±24 $\begin{smallmatrix} +22 \\ -14 \end{smallmatrix}$		LEES	15c BABR	$B^0 \rightarrow D^- D^0 K^+$
113 ±21 $\begin{smallmatrix} +20 \\ -16 \end{smallmatrix}$		LEES	15c BABR	$B^+ \rightarrow \bar{D}^0 D^0 K^+$
112 ± 7 ±36		⁴ AUBERT, BE	06E BABR	10.6 $e^+ e^- \rightarrow D K X$

¹ From a combined analysis of $B^0 \rightarrow D^- D^0 K^+$ and $B^+ \rightarrow \bar{D}^0 D^0 K^+$.

² 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 $D_{sJ}^*(2860)^+$.

³ From simultaneous fits to the two DK mass spectra and to the total $D^* K$ mass spectrum.

⁴ Superseded by AUBERT 09AR.

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

Mode	Fraction (Γ_i/Γ)
Γ_1 DK	
Γ_2 $D^0 K^+$	seen
Γ_3 $D^+ K_S^0$	seen
Γ_4 $D^* K$	
Γ_5 $D^{*0} K^+$	seen
Γ_6 $D^{*+} K_S^0$	seen

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

$\Gamma(D^* K)/\Gamma(DK)$ Γ_4/Γ_1

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
$0.91 \pm 0.13 \pm 0.12$	10.4k	¹ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$

¹ 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

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
$0.88 \pm 0.14 \pm 0.14$	7716	¹ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$

¹ 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

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
$1.14 \pm 0.39 \pm 0.23$	2700	¹ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$

¹ From the $D^{*+} K_S^0$ and $D^+ K_S^0$, where $D^{*+} \rightarrow D^+ \pi^0$.

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

AAIJ	16AW JHEP 1602 133	R. Aaij <i>et al.</i>	(LHCb Collab.)
LEES	15C PR D91 052002	J.P. Lees <i>et al.</i>	(BABAR Collab.)
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.)