

NODE=M182

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

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

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

NODE=M182M

NODE=M182M

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 $^{+14}_{-7}$		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 $^{+12}_{-7}$	10.4k	³ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$
2708 ± 9 $^{+11}_{-10}$	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 $^{+13}_{-3}$		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 $e^+ e^- \rightarrow DK X$

OCCUR=2

OCCUR=3

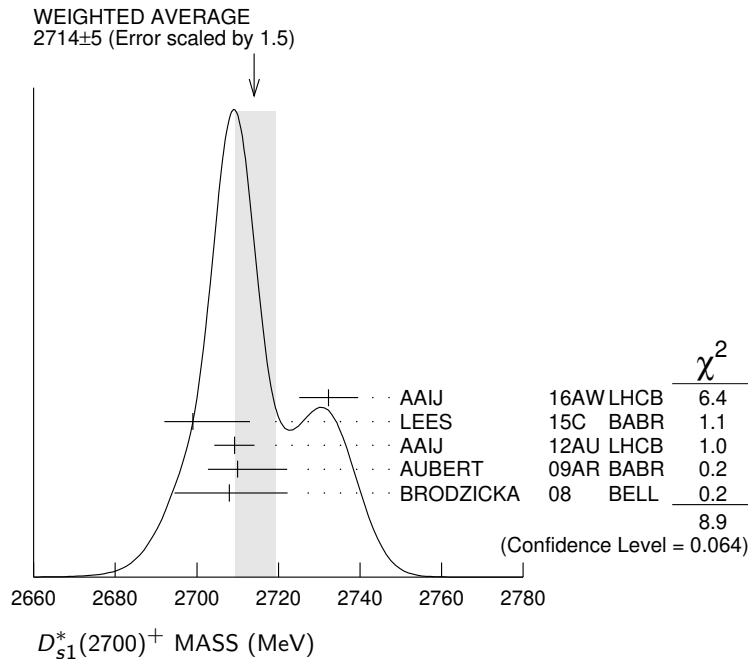
NODE=M182M;LINKAGE=B

NODE=M182M;LINKAGE=AA

NODE=M182M;LINKAGE=AB

NODE=M182M;LINKAGE=AU

- 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- ⁴ Superseded by AUBERT 09AR.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

NODE=M182W

NODE=M182W

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 $^{+24}_{-19}$		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 $^{+39}_{-52}$	10.4k	³ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$
108 ± 23 $^{+36}_{-31}$	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	$^{+22}_{-14}$	LEES	15C	BABR	$B^0 \rightarrow D^- D^0 K^+$
113	± 21	$^{+20}_{-16}$	LEES	15C	BABR	$B^+ \rightarrow \bar{D}^0 D^0 K^+$
112	± 7	± 36	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.

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

OCCUR=2

OCCUR=3

NODE=M182W;LINKAGE=A

NODE=M182W;LINKAGE=AA

NODE=M182W;LINKAGE=AB

NODE=M182W;LINKAGE=AU

NODE=M182215;NODE=M182

DESIG=2

DESIG=1;OUR EVAL;→ UNCHECKED ←

DESIG=3;OUR EVAL;→ UNCHECKED ←

DESIG=4

DESIG=5;OUR EVAL;→ UNCHECKED ←

DESIG=6;OUR EVAL;→ UNCHECKED ←

NODE=M182225

NODE=M182R01

NODE=M182R01

NODE=M182R01;LINKAGE=AU

NODE=M182R02

NODE=M182R02

NODE=M182R02;LINKAGE=AU

NODE=M182R03

NODE=M182R03

NODE=M182R03;LINKAGE=AU

NODE=M182

REFID=60464

REFID=56412

REFID=54735

REFID=53135

REFID=52144

REFID=51512