

$D_{s1}^*(2860)^\pm$ 

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

OMITTED FROM SUMMARY TABLE

$J^P$  consistent with  $1^-$  from angular analysis of AAIJ 14AW. Observed by AUBERT, BE 06E and AUBERT 09AR in inclusive production of  $DK$  and  $D^*K$  in  $e^+e^-$  annihilation.

 $D_{s1}^*(2860)^+$  MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>2859 ±12 ±24</b>		<sup>1</sup> AAIJ	14AW LHCB	$B_s^0 \rightarrow \bar{D}^0 K^- \pi^+$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2866.1 ± 1.0 ± 6.3	36k	<sup>2,3</sup> AAIJ	12AU LHCB	$pp \rightarrow (DK)^+ X$ at 7 TeV
2862 ± 2 ± $\frac{5}{2}$	3122	<sup>3,4</sup> AUBERT	09AR BABR	$e^+e^- \rightarrow D^{(*)} K X$
2856.6 ± 1.5 ± 5.0		<sup>5</sup> AUBERT, BE	06E BABR	$e^+e^- \rightarrow DKX$

<sup>1</sup> Separated from the spin-3 component  $D_{s3}^*(2860)^-$  by a fit of the helicity angle of the  $\bar{D}^0 K^-$  system, with a statistical significance of the spin-3 and spin-1 components in excess of  $10\sigma$ .

<sup>2</sup> 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  $D_{sJ}^*(2860)^+$ .

<sup>3</sup> Possible contribution from the  $D_{s3}^*(2860)$  state.

<sup>4</sup> From simultaneous fits to the two  $DK$  mass spectra and to the total  $D^*K$  mass spectrum.

<sup>5</sup> Superseded by AUBERT 09AR.

 $D_{s1}^*(2860)^+$  WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>159 ±23 ±77</b>		<sup>1</sup> AAIJ	14AW LHCB	$B_s^0 \rightarrow \bar{D}^0 K^- \pi^+$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
69.9 ± 3.2 ± 6.6	36k	<sup>2,3</sup> AAIJ	12AU LHCB	$pp \rightarrow (DK)^+ X$ at 7 TeV
48 ± 3 ± 6	3122	<sup>3,4</sup> AUBERT	09AR BABR	$e^+e^- \rightarrow D^{(*)} K X$
47 ± 7 ± 10		<sup>5</sup> AUBERT, BE	06E BABR	$e^+e^- \rightarrow DKX$

<sup>1</sup> Separated from the spin-3 component  $D_{s3}^*(2860)^-$  by a fit of the helicity angle of the  $\bar{D}^0 K^-$  system, with a statistical significance of the spin-3 and spin-1 components in excess of  $10\sigma$ .

<sup>2</sup> 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  $D_{sJ}^*(2860)^+$ .

<sup>3</sup> Possible contribution from the  $D_{s3}^*(2860)$  state.

<sup>4</sup> From simultaneous fits to the two  $DK$  mass spectra and to the total  $D^*K$  mass spectrum.

<sup>5</sup> Superseded by AUBERT 09AR.

**$D_{s1}^*(2860)^\pm$  DECAY MODES**

Mode	
$\Gamma_1$	$DK$
$\Gamma_2$	$D^0 K^+$
$\Gamma_3$	$D^+ K_S^0$
$\Gamma_4$	$D^* K$
$\Gamma_5$	$D^{*0} K^+$
$\Gamma_6$	$D^{*+} K_S^0$

 **$D_{s1}^*(2860)^\pm$  BRANCHING RATIOS** **$\Gamma(D^* K)/\Gamma(DK)$   $\Gamma_4/\Gamma_1$** 

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
<b><math>1.10 \pm 0.15 \pm 0.19</math></b>	3122	<sup>1</sup> AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$

<sup>1</sup>From the average of the corresponding ratios with  $D^{(*)0} K^+$  and  $D^{(*)+} K_S^0$ .

 **$\Gamma(D^{*0} K^+)/\Gamma(D^0 K^+)$   $\Gamma_5/\Gamma_2$** 

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
$1.04 \pm 0.17 \pm 0.20$	2241	<sup>1</sup> AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$

• • • We do not use the following data for averages, fits, limits, etc. • • •

<sup>1</sup>From the  $D^{*0} K^+$  and  $D^0 K^+$ , where  $D^{*0} \rightarrow D^0 \pi^0$ .

 **$\Gamma(D^{*+} K_S^0)/\Gamma(D^+ K_S^0)$   $\Gamma_6/\Gamma_3$** 

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
$1.38 \pm 0.35 \pm 0.49$	881	<sup>1</sup> AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$

• • • We do not use the following data for averages, fits, limits, etc. • • •

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

 **$D_{s1}^*(2860)^\pm$  REFERENCES**

AAIJ	14AW PRL 113 162001	R. Aaij <i>et al.</i>	(LHCb Collab.) JP
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.)
AUBERT,BE	06E PRL 97 222001	B. Aubert <i>et al.</i>	(BABAR Collab.)