

**$D_1^*(2600)^0$**

$I(J^P) = \frac{1}{2}(1^-)$

OMMITTED FROM SUMMARY TABLE

was  $D_J^*(2600)$

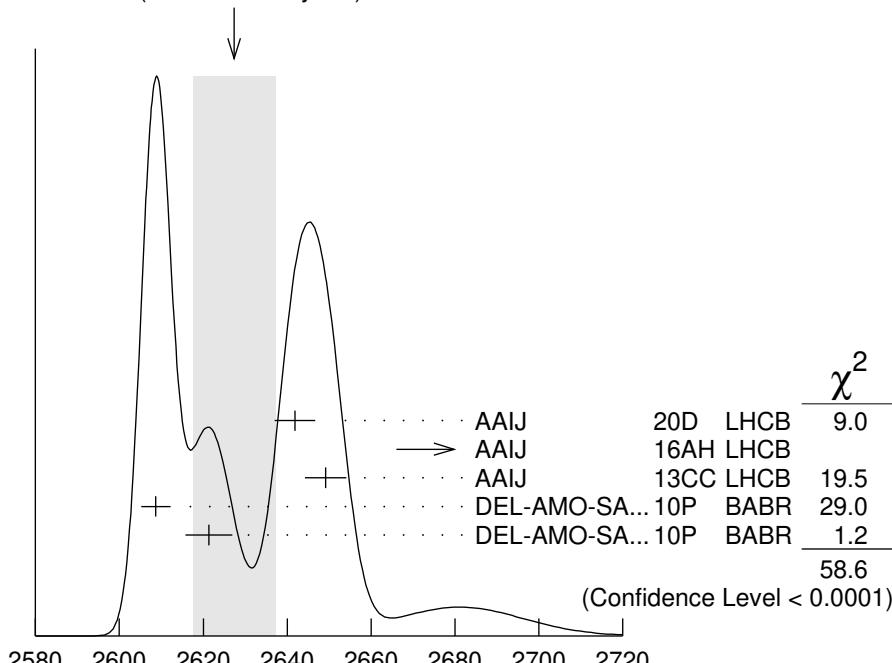
$J^P = 1^-$  determined by AAIJ 20D.

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### $D_1^*(2600)^0$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
<b>2627 <math>\pm 10</math> OUR AVERAGE</b>		Error includes scale factor of 4.4. See the ideogram below.			
2641.9 $\pm$ 1.8 $\pm$ 4.5	79k	1 AAIJ	20D LHCb		$B^- \rightarrow D^{*+} \pi^- \pi^-$
2681.1 $\pm$ 5.6 $\pm$ 14.0	28k	2 AAIJ	16AH LHCb		$B^- \rightarrow D^+ \pi^- \pi^-$
2649.2 $\pm$ 3.5 $\pm$ 3.5	51k	AAIJ	13CC LHCb		$p p \rightarrow D^{*+} \pi^- X$
2608.7 $\pm$ 2.4 $\pm$ 2.5	26k	DEL-AMO-SA..10P	BABR 0		$e^+ e^- \rightarrow D^+ \pi^- X$
2621.3 $\pm$ 3.7 $\pm$ 4.2	13k	3 DEL-AMO-SA..10P	BABR +		$e^+ e^- \rightarrow D^0 \pi^+ X$

WEIGHTED AVERAGE  
2627 $\pm$ 10 (Error scaled by 4.4)



$D_1^*(2600)^0$  MASS (MeV)

<sup>1</sup> From a full four-body amplitude analysis of the  $B^- \rightarrow D^{*+} \pi^- \pi^-$  decay.

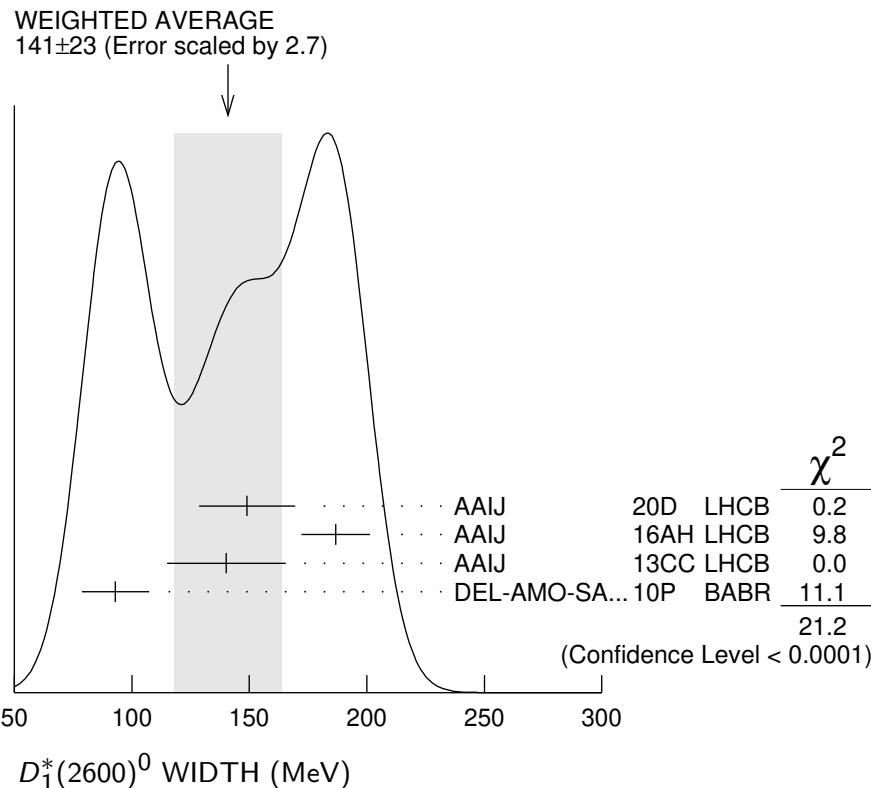
<sup>2</sup> From the amplitude analysis in the model describing the  $D^+ \pi^-$  wave together with virtual contributions from the  $D^*(2007)^0$  and  $B^{*0}$  states, and components corresponding to the  $D_2^*(2460)^0$ ,  $D_1^*(2680)^0$ ,  $D_3^*(2760)^0$ , and  $D_2^*(3000)^0$  resonances.

<sup>3</sup> At a fixed width of 93 MeV.

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## $D_1^*(2600)^0$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>141 ± 23 OUR AVERAGE</b>				Error includes scale factor of 2.7. See the ideogram below.
149 ± 4 ± 20	79k	<sup>1</sup> AAIJ	20D LHCb	$B^- \rightarrow D^{*+} \pi^- \pi^-$
186.7 ± 8.5 ± 11.9	28k	<sup>2</sup> AAIJ	16AH LHCb	$B^- \rightarrow D^+ \pi^- \pi^-$
140.2 ± 17.1 ± 18.6	51k	AAIJ	13CC LHCb	$p p \rightarrow D^{*+} \pi^- X$
93 ± 6 ± 13	26k	DEL-AMO-SA..10P BABR	$e^+ e^- \rightarrow D^+ \pi^- X$	



<sup>1</sup> From a full four-body amplitude analysis of the  $B^- \rightarrow D^{*+} \pi^- \pi^-$  decay.

<sup>2</sup> From the amplitude analysis in the model describing the  $D^+ \pi^-$  wave together with virtual contributions from the  $D^*(2007)^0$  and  $B^{*0}$  states, and components corresponding to the  $D_2^*(2460)^0$ ,  $D_1^*(2680)^0$ ,  $D_3^*(2760)^0$ , and  $D_2^*(3000)^0$  resonances.

## $D_1^*(2600)^0$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 D \pi$	seen
$\Gamma_2 D^+ \pi^-$	seen
$\Gamma_3 D^0 \pi^\pm$	seen
$\Gamma_4 D^* \pi$	seen
$\Gamma_5 D^{*+} \pi^-$	seen

## $D_1^*(2600)^0$ BRANCHING RATIOS

$\Gamma(D^+\pi^-)/\Gamma(D^{*+}\pi^-)$	$\Gamma_2/\Gamma_5$
<b>0.32±0.02±0.09</b>	

## $D_1^*(2600)^0$ REFERENCES

AAIJ	20D	PR D101 032005	R. Aaij <i>et al.</i>	(LHCb Collab.)	JP
AAIJ	16AH	PR D94 072001	R. Aaij <i>et al.</i>	(LHCb Collab.)	
AAIJ	13CC	JHEP 1309 145	R. Aaij <i>et al.</i>	(LHCb Collab.)	
DEL-AMO-SA... 10P	PR D82 111101		P. del Amo Sanchez <i>et al.</i>	(BABAR Collab.)	