

$D_1^*(2600)^0$

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

OMITTED FROM SUMMARY TABLE

was $D_J^*(2600)$ $J^P = 1^-$ determined by AAIJ 20D.

NODE=M199

NODE=M199

NODE=M199M

NODE=M199M

OCCUR=2

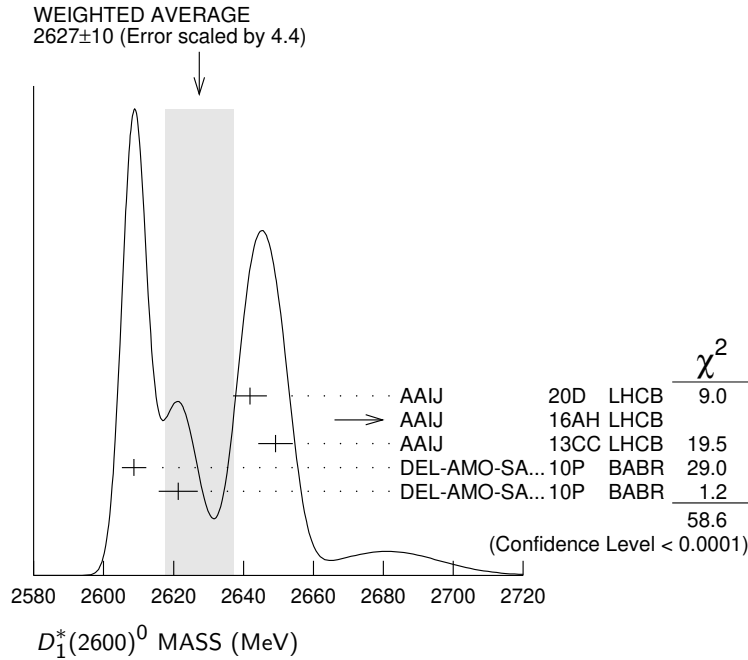
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NODE=M199M;LINKAGE=A

NODE=M199M;LINKAGE=DE

$D_1^*(2600)^0$ MASS

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

¹ From a full four-body amplitude analysis of the $B^- \rightarrow D^{*+} \pi^- \pi^-$ decay.² 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.³ At a fixed width of 93 MeV.

$D_1^*(2600)^0$ WIDTH

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

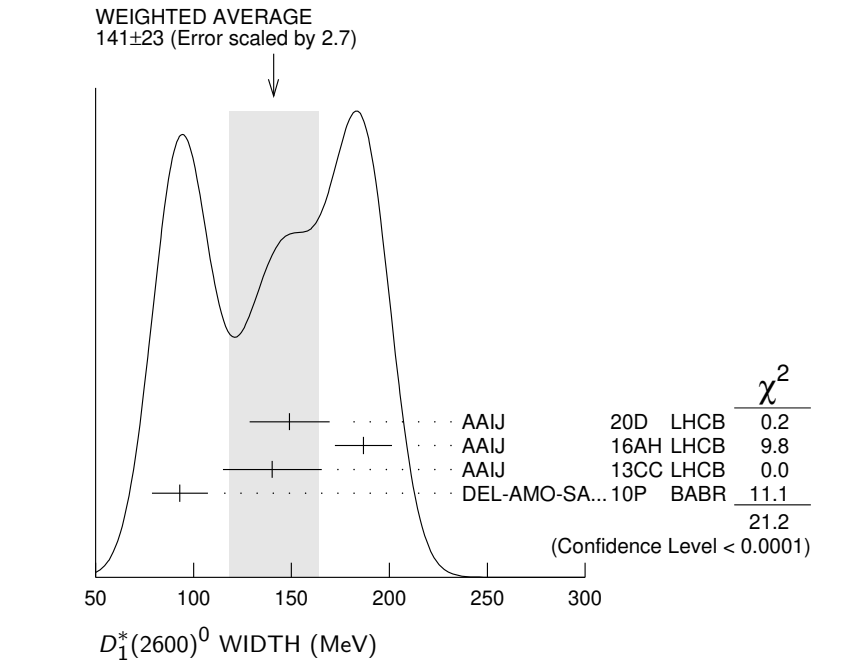
¹ From a full four-body amplitude analysis of the $B^- \rightarrow D^{*+} \pi^- \pi^-$ decay.² From the amplitude analysis in the model describing the $D^+ \pi^-$ wave together with virtual contributions from the $D^*(2007)^0$ and B^{*0} states, and components corresponding to the $D_2^*(2460)^0$, $D_1^*(2680)^0$, $D_3^*(2760)^0$, and $D_2^*(3000)^0$ resonances.

NODE=M199W

NODE=M199W

NODE=M199W;LINKAGE=B

NODE=M199W;LINKAGE=A



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

Mode		Fraction (Γ_i/Γ)
Γ_1	$D\pi$	seen
Γ_2	$D^+\pi^-$	seen
Γ_3	$D^0\pi^\pm$	seen
Γ_4	$D^*\pi$	seen
Γ_5	$D^{*+}\pi^-$	seen

NODE=M199215;NODE=M199

DESIG=1;OUR EVAL;→ UNCHECKED ←
DESIG=2;OUR EVAL;→ UNCHECKED ←
DESIG=3;OUR EVAL;→ UNCHECKED ←
DESIG=4;OUR EVAL;→ UNCHECKED ←
DESIG=5;OUR EVAL;→ UNCHECKED ←

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

$\Gamma(D^+\pi^-)/\Gamma(D^{*+}\pi^-)$					Γ_2/Γ_5
VALUE	EVTs	DOCUMENT ID	TECN	COMMENT	
$0.32\pm0.02\pm0.09$	76k	DEL-AMO-SA...10P	BABR	$e^+e^- \rightarrow D^{(*)+}\pi^- X$	

NODE=M199220

NODE=M199R01
NODE=M199R01

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

NODE=M199

REFID=60253
REFID=57518
REFID=55581
REFID=53534