

**$D(2550)^0$** 

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

OMITTED FROM SUMMARY TABLE

Unnatural parity according to the helicity analysis of DEL-AMO-SANCHEZ 10P and AAIJ 13CC. DEL-AMO-SANCHEZ 10P suggests  $J^P = 0^-$ .

 **$D(2550)^0$  MASS**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>2564 ± 20</b>	<b>OUR AVERAGE</b>	Error includes scale factor of 3.9.		
2579.5 ± 3.4 ± 5.5	60k	AAIJ	13CC LHCB	$pp \rightarrow D^{*+} \pi^- X$
2539.4 ± 4.5 ± 6.8	34k	DEL-AMO-SA...10P	BABR	$e^+ e^- \rightarrow D^{*+} \pi^- X$

 **$D(2550)^0$  WIDTH**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>135 ± 17</b>	<b>OUR AVERAGE</b>			
177.5 ± 17.8 ± 46.0	60k	AAIJ	13CC LHCB	$pp \rightarrow D^{*+} \pi^- X$
130 ± 12 ± 13	34k	DEL-AMO-SA...10P	BABR	$e^+ e^- \rightarrow D^{*+} \pi^- X$

 **$D(2550)^0$  DECAY MODES**

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $D^{*+} \pi^-$	seen

 **$D(2550)^0$  POLARIZATION AMPLITUDE  $A_{D_J}$** 

A polarization amplitude  $A_{D_J}$  is a parameter that depends on the initial polarization of the  $D_J$ . For  $D_J$  decays the helicity angle,  $\theta_H$ , distribution varies like  $1 + A_{D_J} \cos^2(\theta_H)$ , where  $\theta_H$  is the angle in the  $D_J$  rest frame between the two pions emitted in the  $D_J \rightarrow D^* \pi$  and  $D^* \rightarrow D \pi$  decays.

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
• • •	We do not use the following data for averages, fits, limits, etc.	• • •		
4.2 ± 1.3	60k	<sup>1</sup> AAIJ	13CC LHCB	$pp \rightarrow D^{*+} \pi^- X$
<sup>1</sup> Systematic uncertainty not estimated.				

 **$D(2550)^0$  REFERENCES**

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.)