

**$D_2(2740)^0$** 

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

OMITTED FROM SUMMARY TABLE  
was  $D(2740)^0$  $J^P = 2^-$  determined by (AAIJ 20D). **$D_2(2740)^0$  MASS**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>2747 ± 6 OUR AVERAGE</b>				
2751 ± 3 ± 7	79k	<sup>1</sup> AAIJ	20D LHCB	$B^- \rightarrow D^{*+} \pi^- \pi^-$
2737.0 ± 3.5 ± 11.2	7.7k	AAIJ	13CC LHCB	$pp \rightarrow D^{*+} \pi^- X$

<sup>1</sup>From a full four-body amplitude analysis of the  $B^- \rightarrow D^{*+} \pi^- \pi^-$  decay. **$D_2(2740)^0$  WIDTH**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>88 ± 19 OUR AVERAGE</b>				
102 ± 6 ± 26	79k	<sup>1</sup> AAIJ	20D LHCB	$B^- \rightarrow D^{*+} \pi^- \pi^-$
73.2 ± 13.4 ± 25.0	7.7k	AAIJ	13CC LHCB	$pp \rightarrow D^{*+} \pi^- X$

<sup>1</sup>From a full four-body amplitude analysis of the  $B^- \rightarrow D^{*+} \pi^- \pi^-$  decay. **$D_2(2740)^0$  DECAY MODES**

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

 **$D_2(2740)^0$  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. • • •				
3.1 ± 2.2	7.7k	<sup>1</sup> AAIJ	13CC LHCB	$pp \rightarrow D^{*+} \pi^- X$

<sup>1</sup>Systematic uncertainty not estimated. **$D_2(2740)^0$  REFERENCES**

AAIJ	20D PR D101 032005	R. Aaij <i>et al.</i>	(LHCb Collab.) JP
AAIJ	13CC JHEP 1309 145	R. Aaij <i>et al.</i>	(LHCb Collab.)