$D(2750)$

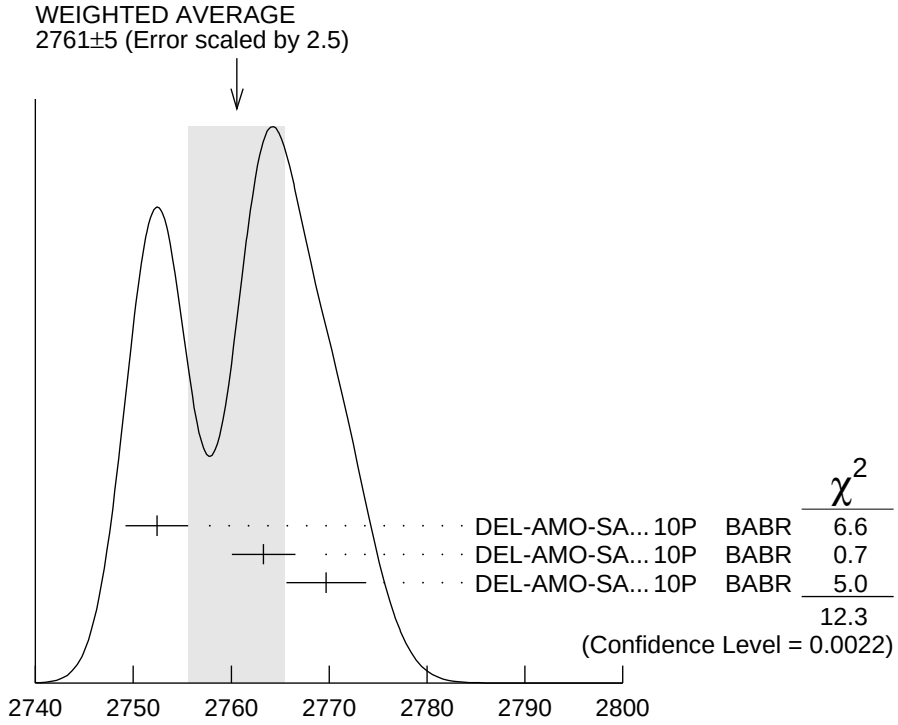
$I(J^P) = \frac{1}{2}(?^?)$

OMITTED FROM SUMMARY TABLE

$D(2750)$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*	*TECN*	*CHG*	*COMMENT*
2761 ±5 OUR AVERAGE		Error includes scale factor of 2.5. See the ideogram below.			
2752.4±1.7±2.7	23.5k	[1] DEL-AMO-SA..10P	BABR	0	$e^+e^- \to D^{*+}\pi^-X$
2763.3±2.3±2.3	11.3k	[1] DEL-AMO-SA..10P	BABR	0	$e^+e^- \to D^+\pi^-X$
2769.7±3.8±1.5	5.7k	[1,2] DEL-AMO-SA..10P	BABR	+	$e^+e^- \to D^0\pi^+X$

[1] The states observed in the $D^*\pi$ and $D\pi$ final states are not necessarily the same.
[2] At a fixed width of 60.9 MeV.



$D(2750)$ WIDTH

VALUE (MeV)	*EVTS*	*DOCUMENT ID*	*TECN*	*COMMENT*
63 ±6 OUR AVERAGE				
71 ±6 ±11	23.5k	[3] DEL-AMO-SA..10P	BABR	$e^+e^- \to D^{*+}\pi^-X$
60.9±5.1± 3.6	11.3k	[3] DEL-AMO-SA..10P	BABR	$e^+e^- \to D^+\pi^-X$

[3] The states observed in the $D^*\pi$ and $D\pi$ final states are not necessarily the same.

D(2750) 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

D(2750) BRANCHING RATIOS

$\Gamma(D^+\pi^-)/\Gamma(D^{*+}\pi^-)$ Γ_2/Γ_5

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
0.42±0.05±0.11	34.8k	[4] DEL-AMO-SA..10P	BABR	$e^+e^- \to D^{(*)+}\pi^- X$

[4] The states observed in the $D^*\pi$ and $D\pi$ final states are not necessarily the same.

D(2750) POLARIZATION AMPLITUDE A_D

A polarization amplitude A_D is a parameter that depends on the initial polarization of the $D(2750)$. For $D(2750)$ decays the helicity angle, θ_H, distribution varies like $1 + A_D \cos(\theta_H)$, where θ_H is the angle in the D^* rest frame between the two pions emitted by the $D(2750) \to D^*\pi$ and $D^* \to D\pi$.

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
-0.33 ± 0.28	23.5k	[5] DEL-AMO-SA..10P	BABR	$e^+e^- \to D^{*+}\pi^- X$

[5] Systematic uncertainties not estimated. The states observed in the $D^*\pi$ and $D\pi$ final states are not necessarily the same.

D(2750) REFERENCES

DEL-AMO-SA... 10P PR D82 111101 P. del Amo Sanchez *et al.* (BABAR Collab.)