$a_2(1700)$

$I^G(J^{PC}) = 1^-(2^{++})$

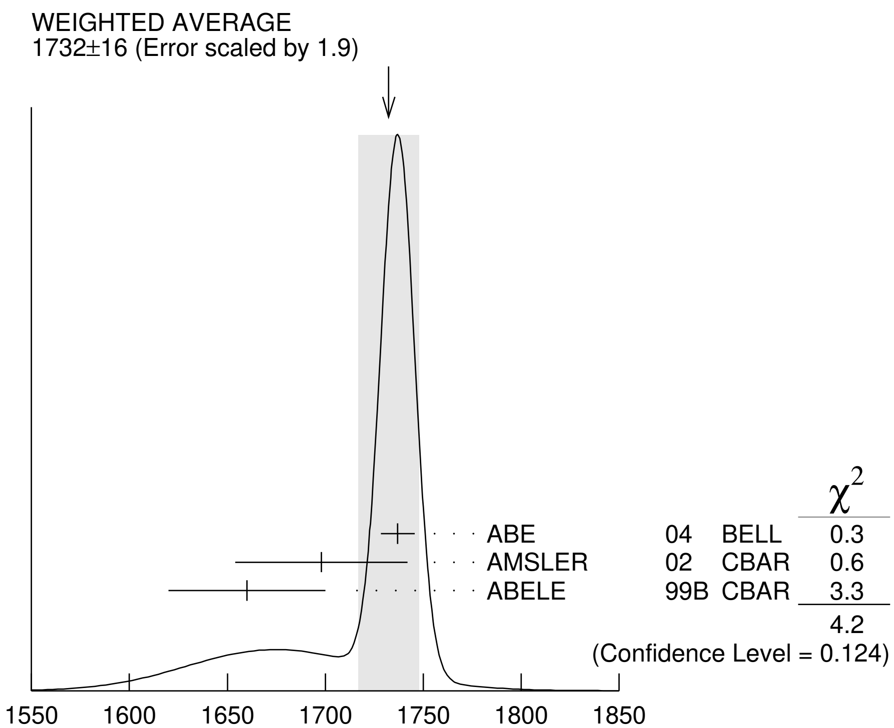
OMITTED FROM SUMMARY TABLE

$a_2(1700)$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
1732±16 OUR AVERAGE	Error includes scale factor of 1.9. See the ideogram below.				
1737± 5± 7		ABE	04	BELL	10.6 $e^+e^- \to e^+e^-K^+K^-$
1698±44		[1] AMSLER	02	CBAR	0.9 $\overline{p}p \to \pi^0\eta\eta$
1660±40		ABELE	99B	CBAR	1.94 $\overline{p}p \to \pi^0\eta\eta$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1721±13±44	145k	LU	05	E852	18 $\pi^-p \to \omega\pi^-\pi^0p$
∼ 1775		[2] GRYGOREV	99	SPEC	40 $\pi^-p \to K^0_SK^0_Sn$
1752±21± 4		ACCIARRI	97T	L3	$\gamma\gamma \to \pi^+\pi^-\pi^0$

[1] T-matrix pole.

[2] Possibly two $J^P = 2^+$ resonances with isospins 0 and 1.

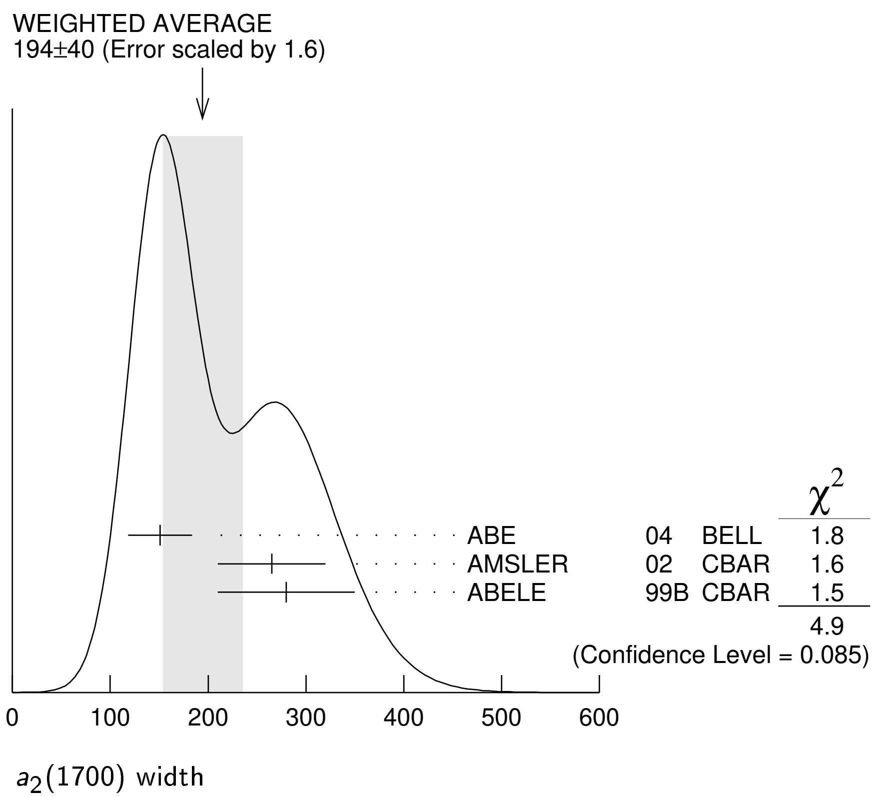


$a_2(1700)$ mass (MeV)

$a_2(1700)$ WIDTH

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
194± 40 OUR AVERAGE		Error includes scale factor of 1.6. See the ideogram below.			
151± 22±24		ABE	04	BELL	10.6 $e^+ e^- \rightarrow e^+ e^- K^+ K^-$
265± 55		[3] AMSLER	02	CBAR	0.9 $\overline{p} p \rightarrow \pi^0 \eta\eta$
280± 70		ABELE	99B	CBAR	1.94 $\overline{p} p \rightarrow \pi^0 \eta\eta$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
279± 49±66	145k	LU	05	E852	18 $\pi^- p \rightarrow \omega\pi^-\pi^0 p$
150±110±34		ACCIARRI	97T	L3	$\gamma\gamma \rightarrow \pi^+\pi^-\pi^0$

[3] T-matrix pole.



$a_2(1700)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\eta\pi$	seen
Γ_2	$\gamma\gamma$	
Γ_3	$\rho\pi$	
Γ_4	$f_2(1270)\pi$	
Γ_5	$K\overline{K}$	seen
Γ_6	$\omega\pi^-\pi^0$	seen
Γ_7	$\omega\rho$	seen

$a_2(1700)$ $\Gamma(i)\Gamma(\gamma\gamma)/\Gamma(\text{total})$

$\left[\Gamma(\rho\pi) + \Gamma(f_2(1270)\pi)\right] \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}}$ $\qquad (\Gamma_3+\Gamma_4)\Gamma_2/\Gamma$

VALUE (keV)	DOCUMENT ID		TECN	COMMENT
0.29±0.04±0.02	ACCIARRI	97T	L3	$\gamma\gamma \to \pi^+\pi^-\pi^0$

$\Gamma(K\overline{K}) \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}}$ $\qquad \Gamma_5\Gamma_2/\Gamma$

VALUE (eV)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
20.6±4.2±4.6	[4] ABE	04	BELL	10.6 $e^+e^- \to e^+e^-K^+K^-$

[4] Assuming spin 2.

$a_2(1700)$ REFERENCES

LU	05	PRL 94 032002	M. Lu et al.	(BNL E852 Collab.)
ABE	04	EPJ C32 323	K. Abe et al.	(BELLE Collab.)
AMSLER	02	EPJ C23 29	C. Amsler et al.	
ABELE	99B	EPJ C8 67	A. Abele et al.	(Crystal Barrel Collab.)
GRYGOREV	99	PAN 62 470	V.K. Grygorev et al.	
		Translated from YAF 62 513.		
ACCIARRI	97T	PL B413 147	M. Acciarri et al.	(L3 Collab.)

OTHER RELATED PAPERS

BAKER	03	PL B563 140	C.A. Baker et al.	
BARBERIS	00H	PL B488 225	D. Barberis et al.	(WA 102 Collab.)