$a_2(1700)$

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

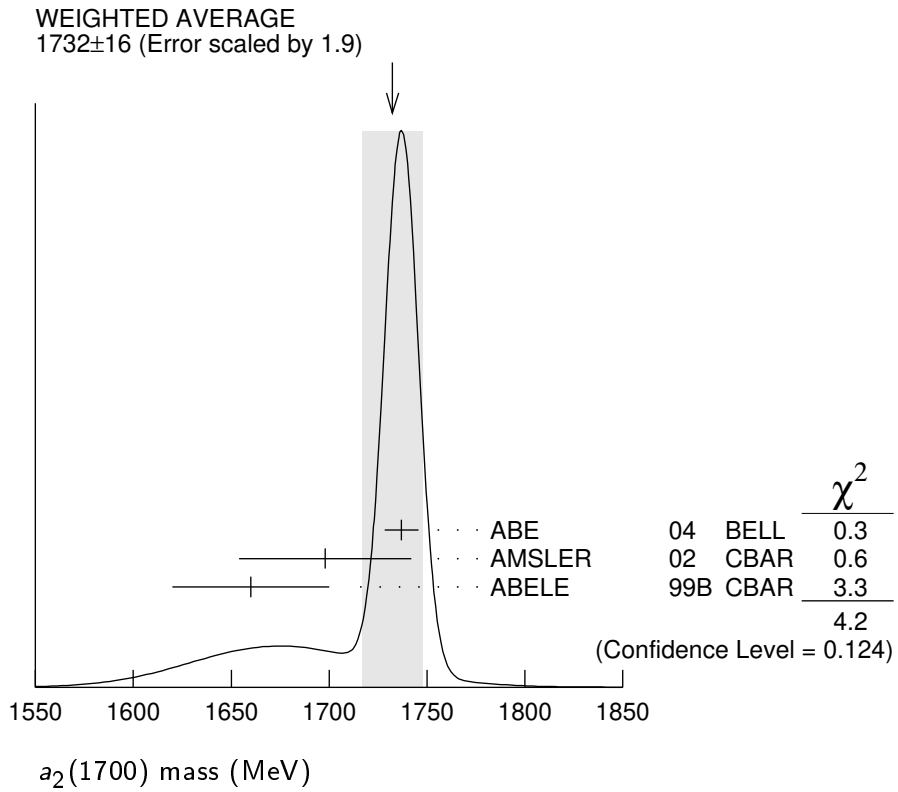
OMITTED FROM SUMMARY TABLE

$a_2(1700)$ 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 $\pi^- p \to \omega\pi^-\pi^0 p$
~ 1775		[2] GRYGOREV	99	SPEC	40 $\pi^- p \to K^0_S K^0_S n$
1752±21± 4		ACCIARRI	97T	L3	$\gamma\gamma \to \pi^+\pi^-\pi^0$

[1] T-matrix pole.

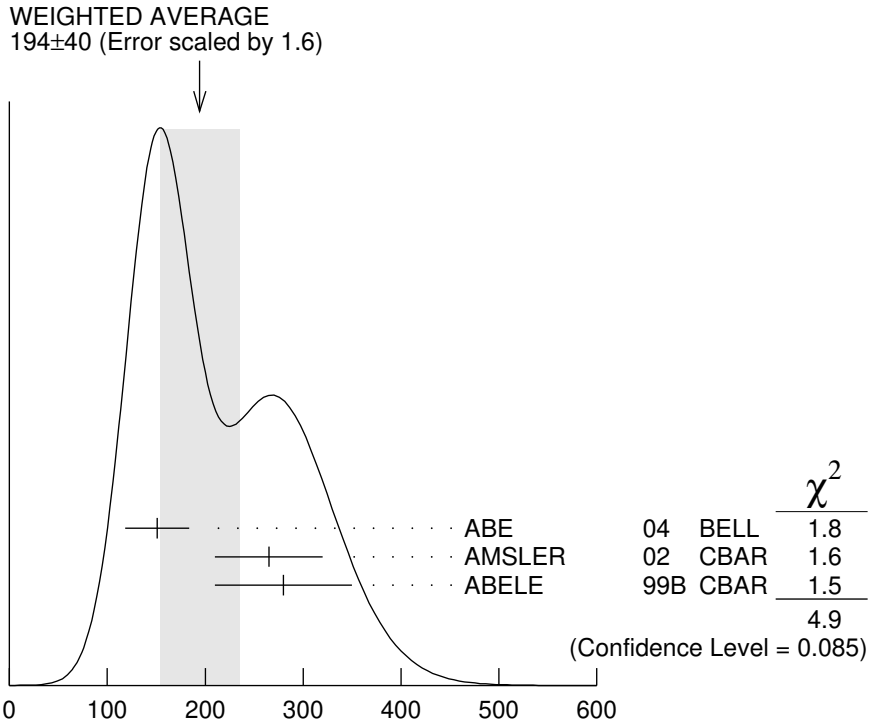
[2] Possibly two $J^P = 2^+$ resonances with isospins 0 and 1.



$a_2(1700)$ 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 $e^+e^- \to e^+e^-K^+K^-$
265 ± 55		[3] AMSLER	02	CBAR	0.9 $\overline{p}p \to \pi^0\eta\eta$
280 ± 70		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. • • •					
279 ± 49 ± 66	145k	LU	05	E852	18 $\pi^- p \to \omega\pi^-\pi^0 p$
150 ± 110 ± 34		ACCIARRI	97T	L3	$\gamma\gamma \to \pi^+\pi^-\pi^0$

[3] T-matrix pole.



$a_2(1700)$ width

$a_2(1700)$ 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

$a_2(1700)$ Γ(i)Γ($\gamma\gamma$)/Γ(total)

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

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

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

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.)