$a_2(1700)$

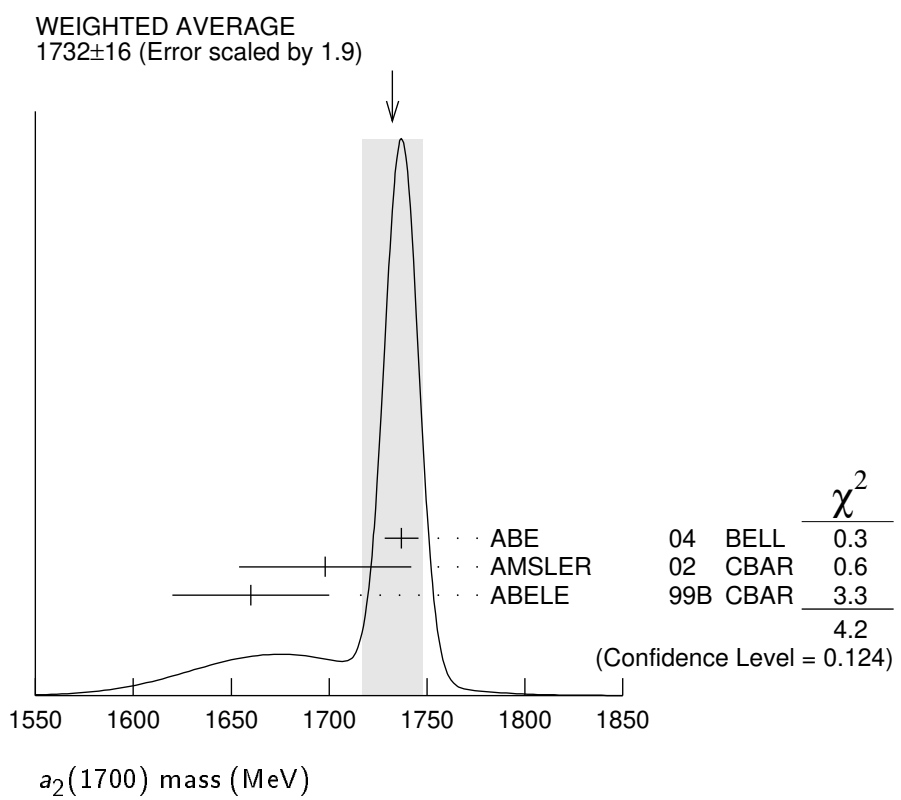
$I^G(J^{PC}) = 1^-(2^{++})$

OMITTED FROM SUMMARY TABLE

$a_2(1700)$ MASS

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

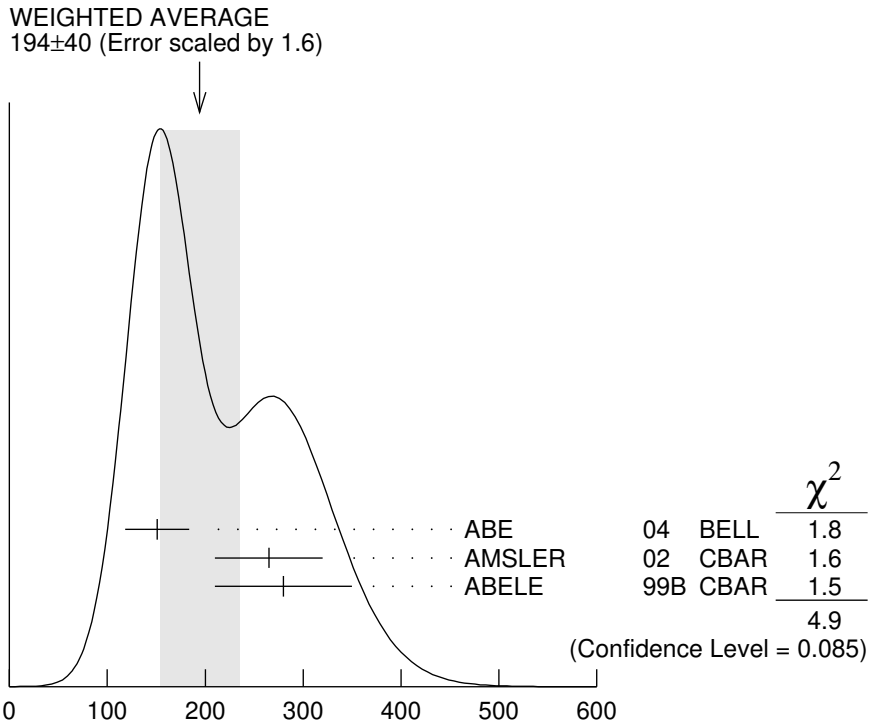
[1] T-matrix pole.
[2] Possibly two $J^P = 2^+$ resonances with isospins 0 and 1.



$a_2(1700)$ WIDTH

VALUE (MeV)	*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. • • •				
150±110±34	ACCIARRI	97T	L3	$\gamma\gamma \to \pi^+\pi^-\pi^0$

[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

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

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

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

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.)