

a₂(1700)

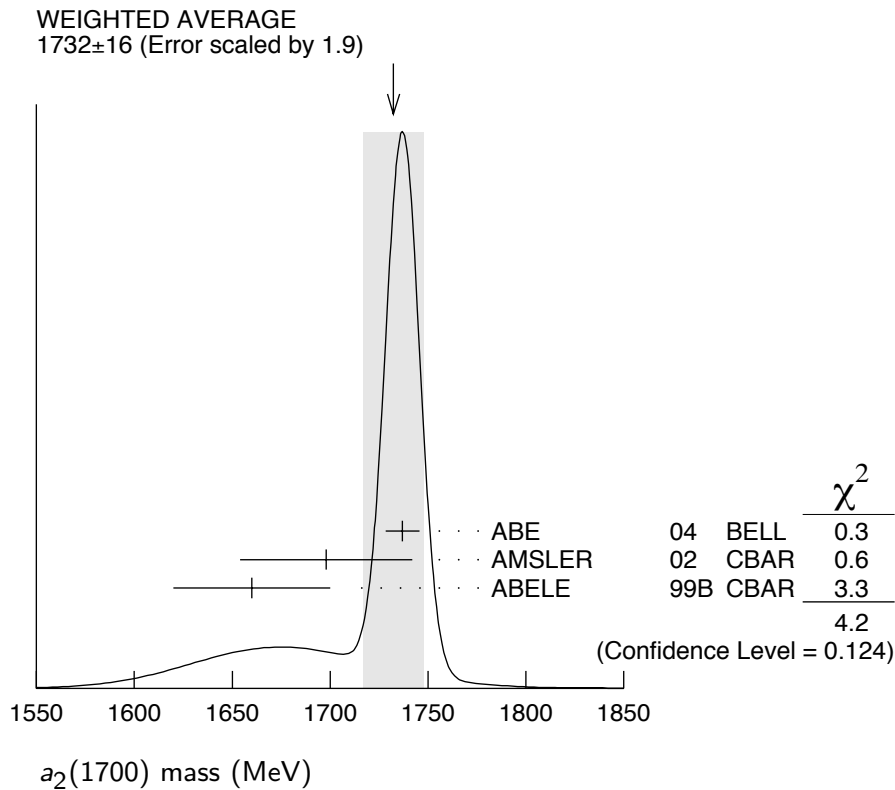
$$I^G(J^{PC}) = 1^-(2^{++})$$

OMITTED FROM SUMMARY TABLE

a₂(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 ⁻ → e ⁺ e ⁻ K ⁺ K ⁻
1698±44		¹ AMSLER	02 CBAR	0.9 p̄p → π ⁰ ηη
1660±40		ABELE	99B CBAR	1.94 p̄p → π ⁰ ηη
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
1721±13±44	145k	LU	05 E852	18 π ⁻ p → ωπ ⁻ π ⁰ p
~ 1775		² GRYGOREV	99 SPEC	40 π ⁻ p → K _S ⁰ K _S ⁰ n
1752±21± 4		ACCIARRI	97T L3	γγ → π ⁺ π ⁻ π ⁰

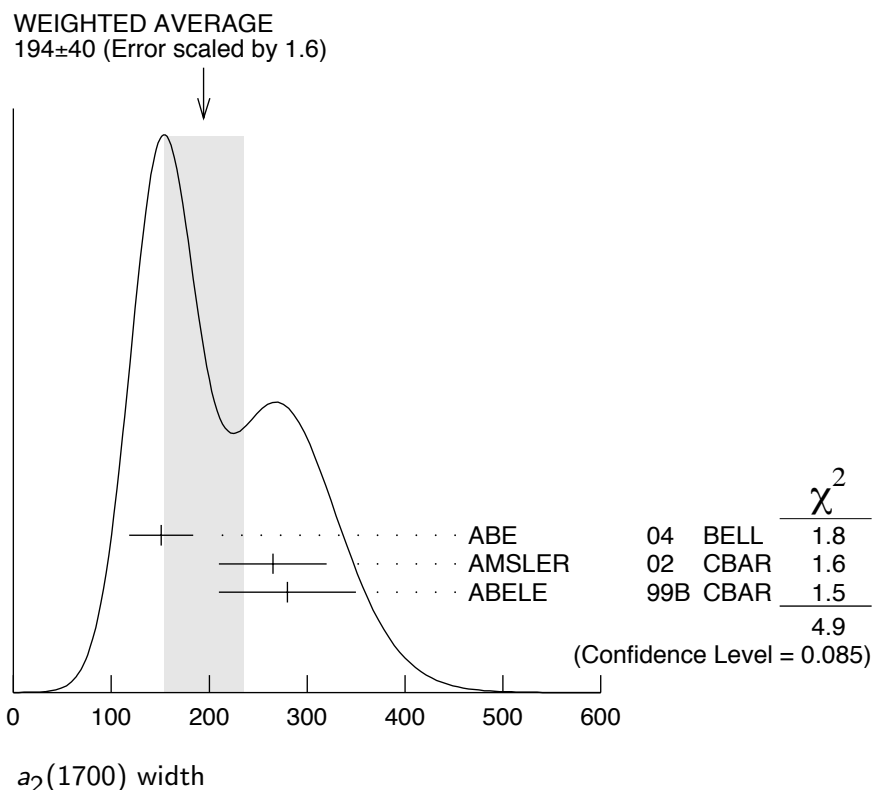
¹ T-matrix pole.
² Possibly two J^P = 2⁺ resonances with isospins 0 and 1.



$a_2(1700)$ 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 $e^+e^- \rightarrow e^+e^-K^+K^-$
265 ± 55		³ AMSLER	02 CBAR	0.9 $\bar{p}p \rightarrow \pi^0\eta\eta$
280 ± 70		ABELE	99B CBAR	1.94 $\bar{p}p \rightarrow \pi^0\eta\eta$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
279 ± 49 ± 66	145k	LU	05 E852	18 $\pi^-p \rightarrow \omega\pi^-\pi^0p$
150 ± 110 ± 34		ACCIARRI	97T L3	$\gamma\gamma \rightarrow \pi^+\pi^-\pi^0$

³T-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 $K\bar{K}$	seen
Γ_6 $\omega\pi^-\pi^0$	seen
Γ_7 $\omega\rho$	seen

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

$[\Gamma(\rho\pi) + \Gamma(f_2(1270)\pi)] \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}}$ VALUE (keV)	DOCUMENT ID	TECN	COMMENT
$0.29 \pm 0.04 \pm 0.02$	ACCIARRI	97T L3	$\gamma\gamma \rightarrow \pi^+\pi^-\pi^0$

$\Gamma(K\bar{K}) \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}}$ VALUE (eV)	DOCUMENT ID	TECN	COMMENT
--	-------------	------	---------

• • • We do not use the following data for averages, fits, limits, etc. • • •

$20.6 \pm 4.2 \pm 4.6$	⁴ ABE	04 BELL	$10.6 \frac{e^+e^- \rightarrow e^+e^- K^+K^-}{e^+e^- K^+K^-}$
------------------------	------------------	---------	---

⁴ Assuming spin 2.

$a_2(1700)$ REFERENCES

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

OTHER RELATED PAPERS

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