

$f_2(2300)$

$$I^G(J^{PC}) = 0^+(2^{++})$$

 $f_2(2300)$ MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
2297±28	¹ ETKIN	88	MPS 22 $\pi^- p \rightarrow \phi\phi n$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
2243 ⁺⁷⁺³ ₋₆₋₂₉	² UEHARA	13	BELL $\gamma\gamma \rightarrow K_S^0 K_S^0$
2270±12	VLADIMIRSK...06	SPEC	40 $\pi^- p \rightarrow K_S^0 K_S^0 n$
2327±9±6	ABE	04	BELL 10.6 $e^+ e^- \rightarrow e^+ e^- K^+ K^-$
2231±10	BOOTH	86	OMEG 85 $\pi^- Be \rightarrow 2\phi Be$
2220 ⁺⁹⁰ ₋₂₀	LINDENBAUM 84	RVUE	
2320±40	ETKIN	82	MPS 22 $\pi^- p \rightarrow 2\phi n$

¹Includes data of ETKIN 85. The percentage of the resonance going into $\phi\phi$ 2^{++} S_2 , D_2 , and D_0 is 6^{+15} ₋₅, 25^{+18} ₋₁₄, and 69^{+16} ₋₂₇, respectively.

²Spin 2 preferred, tentatively assigned to $f_2(2300)$.

 $f_2(2300)$ WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
149±41	³ ETKIN	88	MPS 22 $\pi^- p \rightarrow \phi\phi n$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
145±12 ⁺²⁷ ₋₃₄	⁴ UEHARA	13	BELL $\gamma\gamma \rightarrow K_S^0 K_S^0$
90±29	VLADIMIRSK...06	SPEC	40 $\pi^- p \rightarrow K_S^0 K_S^0 n$
275±36±20	ABE	04	BELL 10.6 $e^+ e^- \rightarrow e^+ e^- K^+ K^-$
133±50	BOOTH	86	OMEG 85 $\pi^- Be \rightarrow 2\phi Be$
200±50	LINDENBAUM 84	RVUE	
220±70	ETKIN	82	MPS 22 $\pi^- p \rightarrow 2\phi n$

³Includes data of ETKIN 85.

⁴Spin 2 preferred, tentatively assigned to $f_2(2300)$.

 $f_2(2300)$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
Γ_1 $\phi\phi$	seen
Γ_2 $K\bar{K}$	seen
Γ_3 $\gamma\gamma$	seen

$f_2(2300) \Gamma(i)\Gamma(\gamma\gamma)/\Gamma(\text{total})$

$\Gamma(K\bar{K}) \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}}$ $\Gamma_2\Gamma_3/\Gamma$

VALUE (eV) DOCUMENT ID TECN COMMENT

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

$3.2^{+0.5+1.3}_{-0.4-2.2}$ 44 $\pm 6 \pm 12$	UEHARA ⁵ ABE	13 BELL 04 BELL	$\gamma\gamma \rightarrow K_S^0 K_S^0$ $10.6 e^+ e^- \rightarrow e^+ e^- K^+ K^-$
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⁵ Assuming spin 2.

$f_2(2300)$ REFERENCES

UEHARA 13 VLADIMIRSK... 06 ABE 04 ETKIN 88 BOOTH 86 ETKIN 85 LINDENBAUM 84 ETKIN 82	PTEP 2013 123C01 PAN 69 493 Translated from YAF 69 515. EPJ C32 323 PL B201 568 NP B273 677 PL 165B 217 CNPP 13 285 PRL 49 1620	S. Uehara <i>et al.</i> V.V. Vladimirsky <i>et al.</i> K. Abe <i>et al.</i> A. Etkin <i>et al.</i> P.S.L. Booth <i>et al.</i> A. Etkin <i>et al.</i> S.J. Lindenbaum A. Etkin <i>et al.</i>	(BELLE Collab.) (ITEP, Moscow) (BELLE Collab.) (BNL, CUNY) (LIVP, GLAS, CERN) (BNL, CUNY) (CUNY) (BNL, CUNY)
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