

$f_2(2300)$

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

$f_2(2300)$ MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
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}	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.

$f_2(2300)$ WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
149 ± 41	² ETKIN	88 MPS	22 $\pi^- p \rightarrow \phi \phi n$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
$145 \pm 12^{+27}_{-34}$	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 $\pi^- p \rightarrow 2\phi n$

²Includes data of ETKIN 85.

$f_2(2300)$ 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 ³ 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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³ Assuming spin 2.

$f_2(2300)$ REFERENCES

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