

$f_2(2340)$

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

 $f_2(2340)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2345⁺⁵⁰₋₄₀ OUR AVERAGE				
2362 ⁺³¹⁺¹⁴⁰ ₋₃₀₋₆₃	5.5k	¹ ABLIKIM	13N BES3	$e^+e^- \rightarrow J/\psi \rightarrow \gamma\eta\eta$
2339 \pm 55		² ETKIN	88 MPS	$22 \pi^- p \rightarrow \phi\phi n$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2350 \pm 7	80k	³ UMAN	06 E835	$5.2 \bar{p}p \rightarrow \eta\eta\pi^0$
2392 \pm 10		BOOTH	86 OMEG	$85 \pi^- Be \rightarrow 2\phi Be$
2360 \pm 20		LINDENBAUM	84 RVUE	

¹ From partial wave analysis including all possible combinations of 0^{++} , 2^{++} , and 4^{++} resonances.

² Includes data of ETKIN 85. The percentage of the resonance going into $\phi\phi$ 2^{++} S_2 , D_2 , and D_0 is 37 ± 19 , 4^{+12}_{-4} , and 59^{+21}_{-19} , respectively.

³ Statistical error only.

 $f_2(2340)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
322⁺⁷⁰₋₆₀ OUR AVERAGE				
334 ⁺⁶²⁺¹⁶⁵ ₋₅₄₋₁₀₀	5.5k	¹ ABLIKIM	13N BES3	$e^+e^- \rightarrow J/\psi \rightarrow \gamma\eta\eta$
319 ⁺⁸¹ ₋₆₉		² ETKIN	88 MPS	$22 \pi^- p \rightarrow \phi\phi n$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
218 \pm 16	80k	³ UMAN	06 E835	$5.2 \bar{p}p \rightarrow \eta\eta\pi^0$
198 \pm 50		BOOTH	86 OMEG	$85 \pi^- Be \rightarrow 2\phi Be$
150 ⁺¹⁵⁰ ₋₅₀		LINDENBAUM	84 RVUE	

¹ From partial wave analysis including all possible combinations of 0^{++} , 2^{++} , and 4^{++} resonances.

² Includes data of ETKIN 85.

³ Statistical error only.

 $f_2(2340)$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
Γ_1 $\phi\phi$	seen
Γ_2 $\eta\eta$	seen

$f_2(2340)$ BRANCHING RATIOS

$\Gamma(\eta\eta)/\Gamma_{\text{total}}$				Γ_2/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
seen	UMAN	06	E835	$5.2 \bar{p}p \rightarrow \eta\eta\pi^0$

 $f_2(2340)$ REFERENCES

ABLIKIM	13N	PR D87 092009	M. Ablikim <i>et al.</i>	(BESIII Collab.)
UMAN	06	PR D73 052009	I. Uman <i>et al.</i>	(FNAL E835)
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)