

$f_2(2340)$ 

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

### $f_2(2340)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>2345<sup>+50</sup><sub>-40</sub> OUR AVERAGE</b>				
2362 <sup>+31+140</sup> <sub>-30-63</sub>	5.5k	<sup>1</sup> ABLIKIM	13N BES3	$e^+e^- \rightarrow J/\psi \rightarrow \gamma\eta\eta$
2339 $\pm$ 55		<sup>2</sup> 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	<sup>3</sup> 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	

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

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

<sup>3</sup> Statistical error only.

### $f_2(2340)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>322<sup>+70</sup><sub>-60</sub> OUR AVERAGE</b>				
334 <sup>+62+165</sup> <sub>-54-100</sub>	5.5k	<sup>4</sup> ABLIKIM	13N BES3	$e^+e^- \rightarrow J/\psi \rightarrow \gamma\eta\eta$
319 <sup>+81</sup> <sub>-69</sub>		<sup>5</sup> 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	<sup>6</sup> 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 <sup>+150</sup> <sub>-50</sub>		LINDENBAUM	84 RVUE	

<sup>4</sup> From partial wave analysis including all possible combinations of  $0^{++}$ ,  $2^{++}$ , and  $4^{++}$  resonances.

<sup>5</sup> Includes data of ETKIN 85.

<sup>6</sup> Statistical error only.

### $f_2(2340)$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $\phi\phi$	seen
$\Gamma_2$ $\eta\eta$	seen

## $f_2(2340)$ BRANCHING RATIOS

$\Gamma(\eta\eta)/\Gamma_{\text{total}}$				$\Gamma_2/\Gamma$
VALUE	DOCUMENT ID	TECN	COMMENT	
<b>seen</b>	UMAN	06	E835	$5.2 \bar{p}p \rightarrow \eta\eta\pi^0$

## $f_2(2340)$ REFERENCES

ABLIKIM	13N	PR D87 092009	Ablikim M. <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)