$f_2(2010)$

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

$f_2(2010)$ MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
$2011^{+\ 62}_{-\ 76}$	[1] ETKIN	88	MPS	$22\ \pi^- p \to\ \phi\phi n$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$2062 \pm\ 6^{+10}_{-\ 7}$	[2] ABLIKIM	22AS	BES3	$J/\psi(1S) \to\ \gamma\eta\eta'$
$2005 \pm\ 12$	VLADIMIRSK...	06	SPEC	$40\ \pi^- p \to\ K^0_S K^0_S n$
$2049^{+\ 35}_{-\ 24}$	[3] LONGACRE	04	RVUE	$22\ \pi^- p \to\ \phi\phi n$, 450 $pp \to\ p_f 4\pi p_s$
$1980 \pm\ 20$	[4] BOLONKIN	88	SPEC	$40\ \pi^- p \to\ K^0_S K^0_S n$
$2050^{+\ 90}_{-\ 50}$	ETKIN	85	MPS	$22\ \pi^- p \to\ 2\phi n$
$2120^{+\ 20}_{-120}$	LINDENBAUM	84	RVUE	
$2160 \pm\ 50$	ETKIN	82	MPS	$22\ \pi^- p \to\ 2\phi n$

[1] Includes data of ETKIN 85. The percentage of the resonance going into $\phi\phi$ 2^{++} S_2, D_2, and D_0 is 98^{+1}_{-3}, 0^{+1}_{-0}, and 2^{+2}_{-1}, respectively.

[2] From a Breit-Wigner fit involving 9 resonances and a resonating exotic $\eta_1(1855) \to\ \eta\eta'$ P-wave.

[3] From a four pole K-matrix reanalysis of ETKIN 88 and BARBERIS 00C data.

[4] Statistically very weak, only 1.4 s.d.

$f_2(2010)$ WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
$202^{+\ 67}_{-\ 62}$	[5] ETKIN	88	MPS	$22\ \pi^- p \to\ \phi\phi n$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$165 \pm\ 17^{+10}_{-\ 5}$	[6] ABLIKIM	22AS	BES3	$J/\psi(1S) \to\ \gamma\eta\eta'$
$209 \pm\ 32$	VLADIMIRSK...	06	SPEC	$40\ \pi^- p \to\ K^0_S K^0_S n$
$567^{+\ 64}_{-\ 71}$	[7] LONGACRE	04	RVUE	$22\ \pi^- p \to\ \phi\phi n$, 450 $pp \to\ p_f 4\pi p_s$
$145 \pm\ 50$	[8] BOLONKIN	88	SPEC	$40\ \pi^- p \to\ K^0_S K^0_S n$
$200^{+160}_{-\ 50}$	ETKIN	85	MPS	$22\ \pi^- p \to\ 2\phi n$
$300^{+150}_{-\ 50}$	LINDENBAUM	84	RVUE	
$310 \pm\ 70$	ETKIN	82	MPS	$22\ \pi^- p \to\ 2\phi n$

[5] Includes data of ETKIN 85.

[6] From a Breit-Wigner fit involving 9 resonances and a resonating exotic $\eta_1(1855) \to\ \eta\eta'$ P-wave.

[7] From a four pole K-matrix reanalysis of ETKIN 88 and BARBERIS 00C data

[8] Statistically very weak, only 1.4 s.d.

$f_2(2010)$ DECAY MODES

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

$f_2(2010)$ BRANCHING RATIOS

$\Gamma(K\overline{K})/\Gamma_{\text{total}}$ Γ_2/Γ

VALUE	DOCUMENT ID	TECN	COMMENT
seen	VLADIMIRSK...06	SPEC	40 $\pi^- p \to K^0_S K^0_S n$

$\Gamma(\gamma\phi)/\Gamma_{\text{total}}$ Γ_3/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
seen	[9] ABLIKIM	25P	BES3	$J/\psi \to \gamma\gamma\phi$

[9] From a partial wave analysis of $J/\psi \to \gamma\gamma\phi$ with significance 11.3σ.

$f_2(2010)$ REFERENCES

ABLIKIM	25P	PR D111 052011	M. Ablikim *et al.*	(BESIII Collab.)
ABLIKIM	22AS	PR D106 072012	M. Ablikim *et al.*	(BESIII Collab.)
Also		PR D107 079901 (errat.)	M. Ablikim *et al.*	(BESIII Collab.)
VLADIMIRSK...	06	PAN 69 493 Translated from YAF 69 515.	V.V. Vladimirsky *et al.*	(ITEP, Moscow)
LONGACRE	04	PR D70 094041	R.S. Longacre, S.J. Lindenbaum	(BNL, CUNY)
BARBERIS	00C	PL B471 440	D. Barberis *et al.*	(WA 102 Collab.)
BOLONKIN	88	NP B309 426	B.V. Bolonkin *et al.*	(ITEP, SERP)
ETKIN	88	PL B201 568	A. Etkin *et al.*	(BNL, CUNY)
ETKIN	85	PL 165B 217	A. Etkin *et al.*	(BNL, CUNY)
LINDENBAUM	84	CNPP 13 285	S.J. Lindenbaum	(CUNY)
ETKIN	82	PRL 49 1620	A. Etkin *et al.*	(BNL, CUNY)
Also		Brighton Conf. 351	S.J. Lindenbaum	(BNL, CUNY)