$f_0(2200)$

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

OMITTED FROM SUMMARY TABLE

Seen in $K^0_S K^0_S$ (AUGUSTIN 88), K^+K^- (ABLIKIM 05Q) and $\eta\eta$ (BINON 05) system. Not seen in $\Upsilon(1S)$ radiative decays (BARU 89).

$f_0(2200)$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
2187±14 OUR AVERAGE					
$2170 \pm 20^{+10}_{-15}$		ABLIKIM	05Q	BES2	$\psi(2S) \to \gamma\pi^+\pi^- K^+K^-$
2197±17		[1] AUGUSTIN	88	DM2	$J/\psi \to \gamma K^0_S K^0_S$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2200±25		SARANTSEV	21	RVUE	$J/\psi(1S) \to \gamma$ ($\pi\pi$, $K\overline{K}$, $\eta\eta$, $\omega\phi$)
2206±12± 8	381	[2,3] DOBBS	15		$J/\psi \to \gamma K^+K^-$
2188±17±16	203	[2,3] DOBBS	15		$\psi(2S) \to \gamma K^+K^-$
2210±50		[4] BINON	05	GAMS	33 $\pi^- p \to \eta\eta n$
~ 2122		HASAN	94	RVUE	$\overline{p}p \to \pi\pi$
~ 2321		HASAN	94	RVUE	$\overline{p}p \to \pi\pi$

[1] Cannot determine spin to be 0.
[2] Using CLEO-c data but not authored by the CLEO Collaboration.
[3] From a fit to a Breit-Wigner line shape with fixed $\Gamma = 238$ MeV.
[4] First solution, PWA is ambiguous.

$f_0(2200)$ WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
210±40 OUR AVERAGE				
$220 \pm 60^{+40}_{-45}$	ABLIKIM	05Q	BES2	$\psi(2S) \to \gamma\pi^+\pi^- K^+K^-$
201±51	[5] AUGUSTIN	88	DM2	$J/\psi \to \gamma K^0_S K^0_S$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
150±30	SARANTSEV	21	RVUE	$J/\psi(1S) \to \gamma$ ($\pi\pi$, $K\overline{K}$, $\eta\eta$, $\omega\phi$)
380±90	[6] BINON	05	GAMS	33 $\pi^- p \to \eta\eta n$
~ 273	HASAN	94	RVUE	$\overline{p}p \to \pi\pi$
~ 223	HASAN	94	RVUE	$\overline{p}p \to \pi\pi$

[5] Cannot determine spin to be 0.
[6] First solution, PWA is ambiguous.

$f_0(2200)$ DECAY MODES

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

$f_0(2200)$ BRANCHING RATIOS

$\Gamma(\gamma\phi)/\Gamma_{total}$ Γ_1/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
seen	[7] ABLIKIM	25P	BES3	$J/\psi \to \gamma\gamma\phi$

[7] From a partial wave analysis of $J/\psi \to \gamma\gamma\phi$ with significance 6.3σ.

$f_0(2200)$ REFERENCES

ABLIKIM	25P	PR D111 052011	M. Ablikim *et al.*	(BESIII Collab.)
SARANTSEV	21	PL B816 136227	A.V. Sarantsev *et al.*	(BONN, PNPI)
DOBBS	15	PR D91 052006	S. Dobbs *et al.*	(NWES)
ABLIKIM	05Q	PR D72 092002	M. Ablikim *et al.*	(BES Collab.)
BINON	05	PAN 68 960	F. Binon *et al.*	
		Translated from YAF 68 998.		
HASAN	94	PL B334 215	A. Hasan, D.V. Bugg	(LOQM)
BARU	89	ZPHY C42 505	S.E. Baru *et al.*	(NOVO)
AUGUSTIN	88	PRL 60 2238	J.E. Augustin *et al.*	(DM2 Collab.)