

$f_0(2100)$

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

OMITTED FROM SUMMARY TABLE

Needs confirmation.

 $f_0(2100)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2101 ± 7 OUR AVERAGE				
2081 ± 13 ⁺²⁴ ₋₃₆	5.5k	¹ ABLIKIM	13N BES3	$e^+e^- \rightarrow J/\psi \rightarrow \gamma\eta\eta$
2102 ± 13		² ANISOVICH	00J SPEC	2.0 $\bar{p}p \rightarrow \eta\pi^0\pi^0, \pi^0\pi^0, \eta\eta, \eta\eta', \pi^+\pi^-$
2090 ± 30		BAI	00A BES	$J/\psi \rightarrow \gamma(\pi^+\pi^-\pi^+\pi^-)$
2105 ± 10		ANISOVICH	99K SPEC	0.6–1.94 $\bar{p}p \rightarrow \eta\eta, \eta\eta'$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
2090 ± 10 ± 6	529	^{3,4} DOBBS	15	$J/\psi \rightarrow \gamma\pi^+\pi^-$
2099 ± 17 ± 8	283	^{3,4} DOBBS	15	$\psi(2S) \rightarrow \gamma\pi^+\pi^-$
2105 ± 8	80k	⁵ UMAN	06 E835	5.2 $\bar{p}p \rightarrow \eta\eta\pi^0$
~ 2104		BUGG	95	$J/\psi \rightarrow \gamma\pi^+\pi^-\pi^+\pi^-$
~ 2122		HASAN	94 RVUE	$\bar{p}p \rightarrow \pi\pi$

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

² Includes the data of ANISOVICH 00B indicating to exotic decay pattern.

³ Using CLEO-c data but not authored by the CLEO Collaboration.

⁴ From a fit to a Breit-Wigner line shape with fixed $\Gamma = 209$ MeV.

⁵ Statistical error only.

 $f_0(2100)$ WIDTH

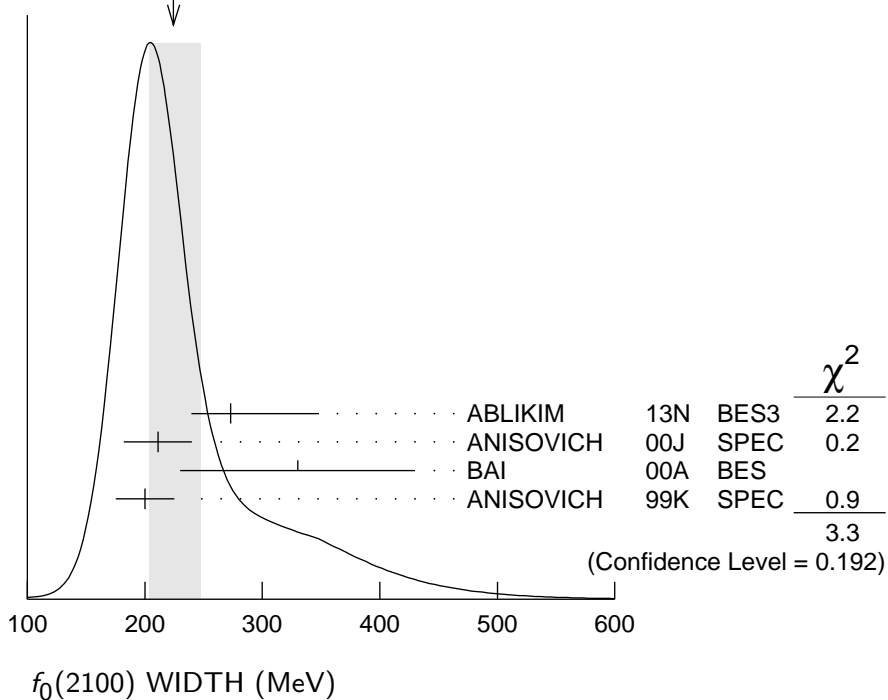
VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
224⁺₋₂₁ ± 23 OUR AVERAGE				
Error includes scale factor of 1.3. See the ideogram below.				
273 ⁺ ₋₂₄ ± 27 ⁺⁷⁰ ₋₂₃	5.5k	⁶ ABLIKIM	13N BES3	$e^+e^- \rightarrow J/\psi \rightarrow \gamma\eta\eta$
211 ± 29		⁷ ANISOVICH	00J SPEC	2.0 $\bar{p}p \rightarrow \eta\pi^0\pi^0, \pi^0\pi^0, \eta\eta, \eta\eta', \pi^+\pi^-$
330 ± 100		BAI	00A BES	$J/\psi \rightarrow \gamma(\pi^+\pi^-\pi^+\pi^-)$
200 ± 25		ANISOVICH	99K SPEC	0.6–1.94 $\bar{p}p \rightarrow \eta\eta, \eta\eta'$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
236 ± 14	80k	⁸ UMAN	06 E835	5.2 $\bar{p}p \rightarrow \eta\eta\pi^0$
~ 203		BUGG	95	$J/\psi \rightarrow \gamma\pi^+\pi^-\pi^+\pi^-$
~ 273		HASAN	94 RVUE	$\bar{p}p \rightarrow \pi\pi$

⁶ From partial wave analysis including all possible combinations of 0^{++} , 2^{++} , and 4^{++} resonances.

⁷ Includes the data of ANISOVICH 00B indicating to exotic decay pattern.

⁸ Statistical error only.

WEIGHTED AVERAGE
224+23-21 (Error scaled by 1.3)



$f_0(2100)$ REFERENCES

DOBBS	15	PR D91 052006	S. Dobbs <i>et al.</i>	(NWES)
ABLIKIM	13N	PR D87 092009	Ablikim M. <i>et al.</i>	(BES III Collab.)
UMAN	06	PR D73 052009	I. Uman <i>et al.</i>	(FNAL E835)
ANISOVICH	00B	NP A662 319	A.V. Anisovich <i>et al.</i>	
ANISOVICH	00J	PL B491 47	A.V. Anisovich <i>et al.</i>	
BAI	00A	PL B472 207	J.Z. Bai <i>et al.</i>	(BES Collab.)
ANISOVICH	99K	PL B468 309	A.V. Anisovich <i>et al.</i>	
BUGG	95	PL B353 378	D.V. Bugg <i>et al.</i>	(LOQM, PNPI, WASH)
HASAN	94	PL B334 215	A. Hasan, D.V. Bugg	(LOQM)