

$f_0(2020)$

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

OMITTED FROM SUMMARY TABLE

Needs confirmation.

 $f_0(2020)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
1992±16		^{1,2} BARBERIS	00C	450 $pp \rightarrow p_f 4\pi p_s$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2037±8	80k	³ UMAN	06 E835	5.2 $\bar{p}p \rightarrow \eta\eta\pi^0$
2040±38		ANISOVICH	00J SPEC	
2010±60		ALDE	98 GAM4	100 $\pi^- p \rightarrow \pi^0\pi^0 n$
2020±35		BARBERIS	97B OMEG	450 $pp \rightarrow pp2(\pi^+\pi^-)$

¹ Average between $\pi^+\pi^-2\pi^0$ and $2(\pi^+\pi^-)$.² T-matrix pole.³ Statistical error only. **$f_0(2020)$ WIDTH**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
442±60		^{4,5} BARBERIS	00C	450 $pp \rightarrow p_f 4\pi p_s$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
296±17	80k	⁶ UMAN	06 E835	5.2 $\bar{p}p \rightarrow \eta\eta\pi^0$
405±40		ANISOVICH	00J SPEC	
240±100		ALDE	98 GAM4	100 $\pi^- p \rightarrow \pi^0\pi^0 n$
410±50		BARBERIS	97B OMEG	450 $pp \rightarrow pp2(\pi^+\pi^-)$

⁴ Average between $\pi^+\pi^-2\pi^0$ and $2(\pi^+\pi^-)$.⁵ T-matrix pole.⁶ Statistical error only. **$f_0(2020)$ DECAY MODES**

Mode	Fraction (Γ_i/Γ)
Γ_1 $\rho\pi\pi$	seen
Γ_2 $\pi^0\pi^0$	seen
Γ_3 $\rho\rho$	seen
Γ_4 $\omega\omega$	seen
Γ_5 $\eta\eta$	seen

 $f_0(2020)$ BRANCHING RATIOS

$\Gamma(\rho\rho)/\Gamma(\omega\omega)$	Γ_3/Γ_4	
VALUE	DOCUMENT ID	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •		
~ 3	BARBERIS	00F 450 $pp \rightarrow p_f\omega\omega p_s$

$\Gamma(\eta\eta)/\Gamma_{\text{total}}$ Γ_5/Γ

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
seen	UMAN	06 E835	5.2 $\bar{p}p \rightarrow \eta\eta\pi^0$

 $f_0(2020)$ REFERENCES

UMAN	06	PR D73 052009	I. Uman <i>et al.</i>	(FNAL E835)
ANISOVICH	00J	PL B491 47	A.V. Anisovich <i>et al.</i>	
BARBERIS	00C	PL B471 440	D. Barberis <i>et al.</i>	(WA 102 Collab.)
BARBERIS	00F	PL B484 198	D. Barberis <i>et al.</i>	(WA 102 Collab.)
ALDE	98	EPJ A3 361	D. Alde <i>et al.</i>	(GAM4 Collab.)
Also		PAN 62 405	D. Alde <i>et al.</i>	(GAMS Collab.)
		Translated from YAF 62 446.		
BARBERIS	97B	PL B413 217	D. Barberis <i>et al.</i>	(WA 102 Collab.)