$f_0(2020)$

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

OMITTED FROM SUMMARY TABLE

Needs confirmation.

$f_0(2020)$ MASS

| EVTS | DOCUMENT ID | | TECN | COMMENT | | |
|-----------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--|--|
| | ^{1,2} BARBERIS | 00 C | | 450 $pp \rightarrow p_f 4\pi p_S$ | | |
| • • • We do not use the following data for averages, fits, limits, etc. • • | | | | | | |
| 80k | ³ UMAN | 06 | E835 | $5.2 \overline{p} p \rightarrow \eta \eta \pi^0$ | | |
| | ANISOVICH | 001 | SPEC | | | |
| | ALDE | | | $100 \ \pi^- p \rightarrow \ \pi^0 \pi^0 n$ | | |
| | BARBERIS | 97 B | OMEG | 450 $pp \to pp2(\pi^{+}\pi^{-})$ | | |
| 1 Average between $\pi^+\pi^-2\pi^0$ and $2(\pi^+\pi^-)$. | | | | | | |
| | se the follo | 1,2 BARBERIS se the following data for aver 80k ³ UMAN ANISOVICH ALDE BARBERIS | 1,2 BARBERIS 00C se the following data for averages, 80k 3 UMAN 06 ANISOVICH 00J ALDE 98 BARBERIS 97B | 1,2 BARBERIS 00C se the following data for averages, fits, limit 80k | | |

²T-matrix pole.

$f_0(2020)$ 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 ι | | | | | |
| 296 ± 17 | 80k | ⁶ UMAN | 06 | E835 | $5.2 \overline{p} p \rightarrow \eta \eta \pi^0$ |
| 405 ± 40 | | ANISOVICH | | SPEC | |
| 240 ± 100 | | ALDE | 98 | GAM4 | $100 \ \pi^- p \rightarrow \ \pi^0 \pi^0 n$ |
| 410± 50 | | BARBERIS | 97 B | OMEG | 450 $pp \to pp2(\pi^{+}\pi^{-})$ |
| 4 | | 0 | | | |

⁴ Average between $\pi^+\pi^-2\pi^0$ and $2(\pi^+\pi^-)$.

$f_0(2020)$ DECAY MODES

| | Mode | Fraction (Γ_i/Γ) |
|-----------------------|--------------------------------------------------------------------------|------------------------------|
| $\overline{\Gamma_1}$ | $ ho\pi\pi$ | seen |
| Γ_2 | $\begin{array}{ccc} ho\pi\pi & & & \\ \pi^{0}\pi^{0} & & & \end{array}$ | seen |
| Γ ₃ | ho ho | seen |
| Γ_4 | $\omega\omega$ | seen |
| Γ_5 | $\eta\eta$ | seen |

f₀(2020) BRANCHING RATIOS

| $\Gamma(ho ho)/\Gamma(\omega\omega)$ | | | Г3/Г4 |
|---------------------------------------|----------------------|-------------------------------------------|-------------|
| VALUE | DOCUMENT ID | COMMENT | |
| • • • We do not use the following | ng data for averages | s, fits, limits, etc. • • • | |
| ~ 3 | BARBERIS | OOF 450 $pp ightarrow p_f \omega \omega$ | p_{S} |
| HTTP://PDG.LBL.GOV | Page 1 | Created: 5/30 | /2017 17:21 |

³ Statistical error only.

⁵ T-matrix pole.

⁶ Statistical error only.

| $\Gamma(\eta\eta)/\Gamma_{\text{total}}$ | | DOCUMENT ID TECN | | TECN | Γ₅/Γ | |
|------------------------------------------|------------|-----------------------------------|-----------------------------------------|------|------------------------|---------------------------------------------------|
| seen | | | UMAN | 06 | E835 | $5.2 \ \overline{p}p \rightarrow \eta \eta \pi^0$ |
| | | f ₀ (| 2020) REFERE | NC | ES | |
| UMAN ANISOVICH | 06 00.J | PR D73 052009 PL B491 47 | I. Uman <i>et al.</i> A.V. Anisovich | | | (FNAL E835) |
| BARBERIS | 00C | PL B471 440 | D. Barberis <i>et</i> | | | (WA 102 Collab.) |
| BARBERIS | 00F | PL B484 198 | D. Barberis et | al. | | (WA 102 Collab.) |
| ALDE | 98 | EPJ A3 361 | D. Alde et al. | | | (GAM4 Collab.) |
| Also | | PAN 62 405 Translated from YAI | D. Alde <i>et al.</i> F 62 446. | | | (GAMS Collab.) |
| BARBERIS | 97B | PL B413 217 | D. Barberis <i>et</i> | al. | | (WA 102 Collab.) |

Created: 5/30/2017 17:21