

**$f_0(2470)$** 

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

## OMITTED FROM SUMMARY TABLE

Seen by ABLIKIM 22C with a significance of  $5.2\sigma$  in a partial-wave analysis of the systems  $(\gamma X)$ ,  $X \rightarrow \eta' \eta'$  and  $(\eta' X)$ ,  $X \rightarrow \gamma \eta'$  in the decay  $J/\psi \rightarrow \gamma \eta' \eta'$ .

 **$f_0(2470)$  MASS**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
$2470 \pm 4^{+4}_{-6}$	<sup>1</sup> ABLIKIM	22C	BES3 $J/\psi \rightarrow \gamma \eta' \eta' \rightarrow 4/5 \gamma 2(\pi^+ \pi^-)$

<sup>1</sup>From a partial wave analysis of the systems  $(\gamma X)$ , with  $X \rightarrow \eta' \eta'$ , and  $(\eta' X)$ , with  $X \rightarrow \gamma \eta'$  in the decay  $J/\psi \rightarrow \gamma \eta' \eta'$ . The intermediate resonance  $X$  is parametrized by a constant-width, relativistic Breit-Wigner.

 **$f_0(2470)$  WIDTH**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
$75 \pm 9^{+11}_{-8}$	<sup>1</sup> ABLIKIM	22C	BES3 $J/\psi \rightarrow \gamma \eta' \eta' \rightarrow 4/5 \gamma 2(\pi^+ \pi^-)$

<sup>1</sup>From a partial wave analysis of the systems  $(\gamma X)$ , with  $X \rightarrow \eta' \eta'$ , and  $(\eta' X)$ , with  $X \rightarrow \gamma \eta'$  in the decay  $J/\psi \rightarrow \gamma \eta' \eta'$ . The intermediate resonance  $X$  is parametrized by a constant-width, relativistic Breit-Wigner.

 **$f_0(2470)$  DECAY MODES**

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad \eta' \eta'$	seen

$\Gamma(\eta' \eta')/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$
seen	

VALUE	DOCUMENT ID	TECN	COMMENT
seen	<sup>1</sup> ABLIKIM	22C	BES3 $J/\psi \rightarrow \gamma \eta' \eta' \rightarrow 4/5 \gamma 2(\pi^+ \pi^-)$

<sup>1</sup>From a partial wave analysis of the systems  $(\gamma X)$ , with  $X \rightarrow \eta' \eta'$ , and  $(\eta' X)$ , with  $X \rightarrow \gamma \eta'$  in the decay  $J/\psi \rightarrow \gamma \eta' \eta'$ . The intermediate resonance  $X$  is parametrized by a constant-width, relativistic Breit-Wigner.

 **$f_0(2470)$  REFERENCES**

ABLIKIM	22C	PR D105 072002	M. Ablikim <i>et al.</i>	(BESIII Collab.)
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