

**$f_0(2470)$** 

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

NODE=M266

## 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  $J/\psi \rightarrow \gamma\eta'\eta'$ .

NODE=M266

 **$f_0(2470)$  MASS**

NODE=M266M

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

NODE=M266M

<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.

NODE=M266M;LINKAGE=A

 **$f_0(2470)$  WIDTH**

NODE=M266W

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

NODE=M266W

<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.

NODE=M266W;LINKAGE=C

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

NODE=M266215;NODE=M266

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

DESIG=1

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

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

NODE=M266R00  
NODE=M266R00

<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.

NODE=M266R00;LINKAGE=A

 **$f_0(2470)$  REFERENCES**

NODE=M266

ABLIKIM 22C PR D105 072002 M. Ablikim *et al.* (BESIII Collab.)

REFID=61637