

Reference = ABLIKIM 14M; PRL 112 251801
Verifier code = BES3

Normally we send all verifications for one experiment to one person, usually the spokesperson or data-analysis coordinator, who then distributes them to the appropriate people. Please tell us if we should send the verifications for your experiment to someone else.

PLEASE READ NOW

*PLEASE
REPLY
WITHIN
ONE WEEK*

Xiao-Rui Lyu

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July 21, 2016

Dear Colleague,

- (1) Please check the results of your experiment carefully. They are marked.
- (2) Please reply within one week.
- (3) Please reply even if everything is correct.
- (4) IMPORTANT!! Please tell WHICH papers you are verifying. We have lots of requests out.
- (5) Feel free to make comments on our treatment of any of the results (not just yours) you see.

Thank you for helping us make the Review accurate and useful.

Sincerely,

Simon Eidelman
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LIGHT UNFLAVORED MESONS

($S = C = B = 0$)

For $I = 1$ (π, b, ρ, a): $u\bar{d}, (u\bar{u}-d\bar{d})/\sqrt{2}, d\bar{u}$;
for $I = 0$ ($\eta, \eta', h, h', \omega, \phi, f, f'$): $c_1(u\bar{u} + d\bar{d}) + c_2(s\bar{s})$

$\eta'(958)$

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

NODE=MXXX005

NODE=MXXX005

NODE=M002

$\eta'(958)$ BRANCHING RATIOS

NODE=M002230

$\Gamma(2(\pi^+\pi^-))/\Gamma_{\text{total}}$ Γ_{12}/Γ

VALUE (units 10^{-5})	CL%	EVTS	DOCUMENT ID	TECN	COMMENT
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YOUR DATA **$8.5 \pm 0.9 \pm 0.3$** 199 ¹ ABLIKIM 14M BES3 $J/\psi \rightarrow \gamma\eta'$

• • • We do not use the following data for averages, fits, limits, etc. • • •

< 24 90 ² NAIK 09 CLEO $J/\psi \rightarrow \gamma\eta'$

<1000 90 RITTENBERG 69 HBC 1.7-2.7 K^-p

YOUR NOTE ¹ ABLIKIM 14M reports $[\Gamma(\eta'(958) \rightarrow 2(\pi^+\pi^-))/\Gamma_{\text{total}}] \times [B(J/\psi(1S) \rightarrow \gamma\eta'(958))]$
 $= (4.40 \pm 0.35 \pm 0.30) \times 10^{-7}$ which we divide by our best value $B(J/\psi(1S) \rightarrow \gamma\eta'(958)) = (5.15 \pm 0.16) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=M002R24;LINKAGE=A

² Not independent of measured value of Γ_{12}/Γ_1 from NAIK 09.

NODE=M002R24;LINKAGE=NA

$\Gamma(\pi^+\pi^-2\pi^0)/\Gamma_{\text{total}}$ Γ_{13}/Γ

VALUE (units 10^{-4})	CL%	EVTS	DOCUMENT ID	TECN	COMMENT
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YOUR DATA **$1.8 \pm 0.4 \pm 0.1$** 84 ¹ ABLIKIM 14M BES3 $J/\psi \rightarrow \gamma\eta'$

• • • We do not use the following data for averages, fits, limits, etc. • • •

<27 90 ² NAIK 09 CLEO $J/\psi \rightarrow \gamma\eta'$

YOUR NOTE ¹ ABLIKIM 14M reports $[\Gamma(\eta'(958) \rightarrow \pi^+\pi^-2\pi^0)/\Gamma_{\text{total}}] \times [B(J/\psi(1S) \rightarrow \gamma\eta'(958))]$
 $= (9.38 \pm 1.79 \pm 0.89) \times 10^{-7}$ which we divide by our best value $B(J/\psi(1S) \rightarrow \gamma\eta'(958)) = (5.15 \pm 0.16) \times 10^{-3}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=M002R51;LINKAGE=A

² Not independent of measured value of Γ_{13}/Γ_1 from NAIK 09.

NODE=M002R51;LINKAGE=NA

$\eta'(958)$ REFERENCES

NODE=M002

YOUR PAPER	ABLIKIM	14M	PRL 112 251801	M. Ablikim <i>et al.</i>	(BES III Collab.)
	NAIK	09	PRL 102 061801	P. Naik <i>et al.</i>	(CLEO Collab.)
	RITTENBERG	69	Thesis UCRL 18863	A. Rittenberg	(LRL)!

REFID=55904
REFID=52678
REFID=20266