

Reference = ABLIKIM 14J; PR D89 074030
Verifier code = BES3

PLEASE READ NOW

*PLEASE
REPLY
WITHIN
ONE WEEK*

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.

Xiao-Rui Lyu

EMAIL: xiaorui@ucas.ac.cn

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
BINP, Budker Inst. of Nuclear Physics
Prospekt Lavrent'eva 11
RU-630090 Novosibirsk
Russian Federation

EMAIL: simon.eidelman@cern.ch

STRANGE MESONS

$(S = \pm 1, C = B = 0)$

$K^+ = u\bar{s}, K^0 = d\bar{s}, \bar{K}^0 = \bar{d}s, K^- = \bar{u}s$, similarly for K^{*} 's

$K_0^*(1430)$

$$I(J^P) = \frac{1}{2}(0^+)$$

See our minireview in the 1994 edition and in this edition under the $f_0(500)$.

$K_0^*(1430)$ BRANCHING RATIOS

$\Gamma(K\eta'(958))/\Gamma_{\text{total}}$					Γ_3/Γ
VALUE	DOCUMENT ID	TECN	COMMENT		
YOUR DATA seen	ABLIKIM	14J	BES3	$\psi(2S) \rightarrow \gamma K^+ K^- \eta'(958)$	

$K_0^*(1430)$ REFERENCES

YOUR PAPER ABLIKIM 14J PR D89 074030 M. Ablikim *et al.* (BES III Collab.)

$c\bar{c}$ MESONS

$\chi_{c1}(1P)$

$$I^G(J^{PC}) = 0^+(1^{++})$$

See the Review on " $\psi(2S)$ and χ_c branching ratios" before the $\chi_{c0}(1P)$ Listings.

$\chi_{c1}(1P)$ BRANCHING RATIOS

HADRONIC DECAYS

$\Gamma(K^+ K^- \eta'(958))/\Gamma_{\text{total}}$					Γ_{27}/Γ
VALUE (units 10^{-4})	EVTS	DOCUMENT ID	TECN	COMMENT	
YOUR DATA 8.75 ± 0.87	310	¹ ABLIKIM	14J	BES3 $\psi(2S) \rightarrow \gamma K^+ K^- \eta'(958)$	

YOUR NOTE ¹ Derived using $B(\psi(2S) \rightarrow \gamma \chi_{c1}) = (9.2 \pm 0.4)\%$. Uncertainty includes both statistical and systematic contributions combined in quadrature.

$\Gamma(K_0^*(1430)^+ K^- + \text{c.c.})/\Gamma_{\text{total}}$					Γ_{28}/Γ
VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT		
YOUR DATA $6.41 \pm 0.57^{+2.09}_{-2.71}$	¹ ABLIKIM	14J	BES3	$\psi(2S) \rightarrow \gamma K^+ K^- \eta'(958)$	

YOUR NOTE ¹ Normalized to $B(\chi_{c1} \rightarrow K^+ K^- \eta'(958))$ branching fraction.

$\Gamma(f_0(980)\eta'(958))/\Gamma_{\text{total}}$					Γ_{29}/Γ
VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT		
YOUR DATA $1.65 \pm 0.47^{+1.32}_{-0.56}$	¹ ABLIKIM	14J	BES3	$\psi(2S) \rightarrow \gamma K^+ K^- \eta'(958)$	

YOUR NOTE ¹ Normalized to $B(\chi_{c1} \rightarrow K^+ K^- \eta'(958))$ branching fraction.

$\Gamma(f_0(1710)\eta'(958))/\Gamma_{\text{total}}$					Γ_{30}/Γ
VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT		
YOUR DATA $0.71 \pm 0.22^{+0.68}_{-0.48}$	¹ ABLIKIM	14J	BES3	$\psi(2S) \rightarrow \gamma K^+ K^- \eta'(958)$	

YOUR NOTE ¹ Normalized to $B(\chi_{c1} \rightarrow K^+ K^- \eta'(958))$ branching fraction.

NODE=MXXX020

NODE=MXXX020

NODE=M019

NODE=M019

NODE=M019220

NODE=M019R00
NODE=M019R00

NODE=M019

REFID=55901

NODE=MXXX025

NODE=M055

NODE=M055

NODE=M055225

NODE=M055305

NODE=M055R64
NODE=M055R64

NODE=M055R64;LINKAGE=A

NODE=M055R65
NODE=M055R65

NODE=M055R65;LINKAGE=A

NODE=M055R66
NODE=M055R66

NODE=M055R66;LINKAGE=A

NODE=M055R67
NODE=M055R67

NODE=M055R67;LINKAGE=A

$\Gamma(f_2'(1525)\eta'(958))/\Gamma_{\text{total}}$				Γ_{31}/Γ
VALUE (units 10^{-4})	DOCUMENT ID	TECN	COMMENT	
YOUR DATA $0.92 \pm 0.23^{+0.55}_{-0.51}$	¹ ABLIKIM	14J	BES3 $\psi(2S) \rightarrow \gamma K^+ K^- \eta'(958)$	
YOUR NOTE	¹ Normalized to $B(\chi_{c1} \rightarrow K^+ K^- \eta'(958))$ branching fraction.			

NODE=M055R68
NODE=M055R68

NODE=M055R68;LINKAGE=A

$\chi_{c1}(1P)$ REFERENCES

YOUR PAPER ABLIKIM 14J PR D89 074030 M. Ablikim *et al.* (BES III Collab.)

NODE=M055
REFID=55901
NODE=M057

$\chi_{c2}(1P)$

$I^G(J^{PC}) = 0^+(2^{++})$

See the Review on " $\psi(2S)$ and χ_c branching ratios" before the $\chi_{c0}(1P)$ Listings.

NODE=M057

$\chi_{c2}(1P)$ BRANCHING RATIOS

NODE=M057225

HADRONIC DECAYS

NODE=M057305

$\Gamma(K^+ K^- \eta'(958))/\Gamma_{\text{total}}$				Γ_{34}/Γ
VALUE (units 10^{-4})	EVTS	DOCUMENT ID	TECN	COMMENT
YOUR DATA 1.94 ± 0.34	107	¹ ABLIKIM	14J	BES3 $\psi(2S) \rightarrow \gamma K^+ K^- \eta'(958)$
YOUR NOTE	¹ Derived using $B(\psi(2S) \rightarrow \gamma \chi_{c2}) = (8.72 \pm 0.34)\%$. Uncertainty includes both statistical and systematic contributions combined in quadrature.			

NODE=M057R78
NODE=M057R78

NODE=M057R78;LINKAGE=A

$\chi_{c2}(1P)$ REFERENCES

YOUR PAPER ABLIKIM 14J PR D89 074030 M. Ablikim *et al.* (BES III Collab.)

NODE=M057
REFID=55901