

Reference = ABLIKIM 15I; PR D91 092006  
Verifier code = BES3

*PLEASE READ NOW*



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

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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,

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Russian Federation

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# c $\bar{c}$ MESONS

NODE=MXXX025

## $\chi_{c0}(1P)$

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

NODE=M056

### ————— $\chi_{c0}(1P)$ BRANCHING RATIOS —————

NODE=M056220

#### ————— HADRONIC DECAYS —————

NODE=M056305

 $\Gamma(K^- \Lambda \bar{\Xi}^+ + \text{c.c.})/\Gamma_{\text{total}}$ 
 $\Gamma_{81}/\Gamma$ 

	VALUE (units $10^{-4}$ )	EVTS	DOCUMENT ID	TECN	COMMENT
YOUR DATA	<b>1.90 ± 0.34 ± 0.05</b>	57	<sup>1</sup> ABLIKIM	15I BES3	$\psi(2S) \rightarrow \gamma K^- \Lambda \bar{\Xi}^+ + \text{c.c.}$

NODE=M056R92  
NODE=M056R92

YOUR NOTE <sup>1</sup> ABLIKIM 15I reports  $[\Gamma(\chi_{c0}(1P) \rightarrow K^- \Lambda \bar{\Xi}^+ + \text{c.c.})/\Gamma_{\text{total}}] \times [B(\psi(2S) \rightarrow \gamma \chi_{c0}(1P))] = (1.90 \pm 0.30 \pm 0.16) \times 10^{-5}$  which we divide by our best value  $B(\psi(2S) \rightarrow \gamma \chi_{c0}(1P)) = (9.99 \pm 0.27) \times 10^{-2}$ . Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=M056R92;LINKAGE=A

### ————— $\chi_{c0}(1P)$ REFERENCES —————

NODE=M056

YOUR PAPER ABLIKIM 15I PR D91 092006 M. Ablikim *et al.* (BES III Collab.)

REFID=56774  
NODE=M055

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

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

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

NODE=M055

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

NODE=M055225

#### ————— HADRONIC DECAYS —————

NODE=M055305

 $\Gamma(K^- \Lambda \bar{\Xi}^+ + \text{c.c.})/\Gamma_{\text{total}}$ 
 $\Gamma_{70}/\Gamma$ 

	VALUE (units $10^{-4}$ )	EVTS	DOCUMENT ID	TECN	COMMENT
YOUR DATA	<b>1.38 ± 0.24 ± 0.05</b>	49	<sup>1</sup> ABLIKIM	15I BES3	$\psi(2S) \rightarrow \gamma K^- \Lambda \bar{\Xi}^+ + \text{c.c.}$

NODE=M055R71  
NODE=M055R71

YOUR NOTE <sup>1</sup> ABLIKIM 15I reports  $[\Gamma(\chi_{c1}(1P) \rightarrow K^- \Lambda \bar{\Xi}^+ + \text{c.c.})/\Gamma_{\text{total}}] \times [B(\psi(2S) \rightarrow \gamma \chi_{c1}(1P))] = (1.32 \pm 0.20 \pm 0.12) \times 10^{-5}$  which we divide by our best value  $B(\psi(2S) \rightarrow \gamma \chi_{c1}(1P)) = (9.55 \pm 0.31) \times 10^{-2}$ . Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=M055R71;LINKAGE=A

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

NODE=M055

YOUR PAPER ABLIKIM 15I PR D91 092006 M. Ablikim *et al.* (BES III Collab.)

REFID=56774  
NODE=M057

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

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

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

NODE=M057

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

NODE=M057225

#### ————— HADRONIC DECAYS —————

NODE=M057305

 $\Gamma(K^- \Lambda \bar{\Xi}^+ + \text{c.c.})/\Gamma_{\text{total}}$ 
 $\Gamma_{69}/\Gamma$ 

	VALUE (units $10^{-4}$ )	EVTS	DOCUMENT ID	TECN	COMMENT
YOUR DATA	<b>1.84 ± 0.33 ± 0.06</b>	51	<sup>1</sup> ABLIKIM	15I BES3	$\psi(2S) \rightarrow \gamma K^- \Lambda \bar{\Xi}^+ + \text{c.c.}$

NODE=M057R81  
NODE=M057R81

YOUR NOTE <sup>1</sup> ABLIKIM 15I reports  $[\Gamma(\chi_{c2}(1P) \rightarrow K^- \Lambda \bar{\Xi}^+ + \text{c.c.})/\Gamma_{\text{total}}] \times [B(\psi(2S) \rightarrow \gamma \chi_{c2}(1P))] = (1.68 \pm 0.26 \pm 0.15) \times 10^{-5}$  which we divide by our best value  $B(\psi(2S) \rightarrow \gamma \chi_{c2}(1P)) = (9.11 \pm 0.31) \times 10^{-2}$ . Our first error is their experiment's error and our second error is the systematic error from using our best value.

NODE=M057R81;LINKAGE=A

$\chi_{c2}(1P)$  REFERENCESYOUR PAPER ABLIKIM 15I PR D91 092006 M. Ablikim *et al.* (BES III Collab.)

NODE=M057

REFID=56774

NODE=M071

 $\psi(2S)$ 

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

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

NODE=M071

 $\psi(2S)$  BRANCHING RATIOS

NODE=M071235

## HADRONIC DECAYS

NODE=M071310

 $\Gamma(K^- \Lambda \bar{\Xi}^+ + \text{c.c.})/\Gamma_{\text{total}}$   $\Gamma_{36}/\Gamma$ 

NODE=M071S82

NODE=M071S82

VALUE (units  $10^{-5}$ ) EVTS DOCUMENT ID TECN COMMENTYOUR DATA  **$3.86 \pm 0.27 \pm 0.32$**  236 ABLIKIM 15I BES3  $e^+ e^- \rightarrow \psi(2S) \rightarrow$   
 $K^- \Lambda \bar{\Xi}^+ + \text{c.c.}$  | $\Gamma(\Xi(1690)^- \bar{\Xi}^+ \rightarrow K^- \Lambda \bar{\Xi}^+ + \text{c.c.})/\Gamma_{\text{total}}$   $\Gamma_{37}/\Gamma$ 

NODE=M071S83

NODE=M071S83

VALUE (units  $10^{-6}$ ) EVTS DOCUMENT ID TECN COMMENTYOUR DATA  **$5.21 \pm 1.48 \pm 0.57$**  74 ABLIKIM 15I BES3  $e^+ e^- \rightarrow \psi(2S) \rightarrow$   
 $K^- \Lambda \bar{\Xi}^+ + \text{c.c.}$  | $\Gamma(\Xi(1820)^- \bar{\Xi}^+ \rightarrow K^- \Lambda \bar{\Xi}^+ + \text{c.c.})/\Gamma_{\text{total}}$   $\Gamma_{38}/\Gamma$ 

NODE=M071S84

NODE=M071S84

VALUE (units  $10^{-6}$ ) EVTS DOCUMENT ID TECN COMMENTYOUR DATA  **$12.03 \pm 2.94 \pm 1.22$**  136 ABLIKIM 15I BES3  $e^+ e^- \rightarrow \psi(2S) \rightarrow$   
 $K^- \Lambda \bar{\Xi}^+ + \text{c.c.}$  | $\Gamma(K^- \Sigma^0 \bar{\Xi}^+ + \text{c.c.})/\Gamma_{\text{total}}$   $\Gamma_{39}/\Gamma$ 

NODE=M071S85

NODE=M071S85

VALUE (units  $10^{-5}$ ) EVTS DOCUMENT ID TECN COMMENTYOUR DATA  **$3.67 \pm 0.33 \pm 0.28$**  142 ABLIKIM 15I BES3  $e^+ e^- \rightarrow \psi(2S) \rightarrow$   
 $K^- \Sigma^0 \bar{\Xi}^+ + \text{c.c.}$  | $\psi(2S)$  REFERENCES

NODE=M071

YOUR PAPER ABLIKIM 15I PR D91 092006 M. Ablikim *et al.* (BES III Collab.)

REFID=56774