

Reference = ABLIKIM 16L; PR D93 072003
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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March 20, 2017

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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$c\bar{c}$ MESONS

 $J/\psi(1S)$

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

NODE=MXXX025

NODE=M070

$J/\psi(1S)$ BRANCHING RATIOS

NODE=M070230

HADRONIC DECAYS

NODE=M070305

 $\Gamma(\Sigma(1385)^- \bar{\Sigma}(1385)^+ (\text{or c.c.}))/\Gamma_{\text{total}}$
 Γ_{50}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID	TECN	COMMENT
1.16 ±0.05 OUR AVERAGE				
YOUR DATA 1.096±0.012±0.071	43K	ABLIKIM 16L	BES3	$J/\psi \rightarrow \Sigma(1385)^- \bar{\Sigma}(1385)^+$
YOUR DATA 1.258±0.014±0.078	53k	ABLIKIM 16L	BES3	$J/\psi \rightarrow \Sigma(1385)^+ \bar{\Sigma}(1385)^-$
1.23 ±0.07 ±0.30	0.8k	ABLIKIM 12P	BES2	$J/\psi \rightarrow \Sigma(1385)^- \bar{\Sigma}(1385)^+$
1.50 ±0.08 ±0.38	1k	ABLIKIM 12P	BES2	$J/\psi \rightarrow \Sigma(1385)^+ \bar{\Sigma}(1385)^-$
1.00 ±0.04 ±0.21	0.6k	HENRARD 87	DM2	$e^+ e^- \rightarrow \Sigma^{*-}$
1.19 ±0.04 ±0.25	0.7k	HENRARD 87	DM2	$e^+ e^- \rightarrow \Sigma^{*+}$
0.86 ±0.18 ±0.22	56	EATON 84	MRK2	$e^+ e^- \rightarrow \Sigma^{*-}$
1.03 ±0.24 ±0.25	68	EATON 84	MRK2	$e^+ e^- \rightarrow \Sigma^{*+}$

NODE=M070R67
NODE=M070R67

OCCUR=2

OCCUR=2

OCCUR=2

OCCUR=2

STABLE HADRONS

NODE=M070307

 $\Gamma(\Xi^- \bar{\Xi}^+)/\Gamma_{\text{total}}$
 Γ_{142}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID	TECN	COMMENT
0.97 ±0.08 OUR AVERAGE				Error includes scale factor of 1.4. See the ideogram below.
YOUR DATA 1.040±0.006±0.074	43k	ABLIKIM 16L	BES3	$J/\psi \rightarrow \Xi^- \bar{\Xi}^+$
0.90 ±0.03 ±0.18	961	ABLIKIM 12P	BES2	$J/\psi \rightarrow \Xi^- \bar{\Xi}^+$
0.70 ±0.06 ±0.12	132	HENRARD 87	DM2	$e^+ e^- \rightarrow \Xi^- \bar{\Xi}^+$
1.14 ±0.08 ±0.20	194	EATON 84	MRK2	$e^+ e^- \rightarrow \Xi^- \bar{\Xi}^+$
1.4 ±0.5	51	PERUZZI 78	MRK1	$e^+ e^- \rightarrow \Xi^- \bar{\Xi}^+$

NODE=M070R62
NODE=M070R62

$J/\psi(1S)$ REFERENCES

NODE=M070

YOUR PAPER	ABLIKIM 16L	PR D93 072003	M. Ablikim <i>et al.</i>	(BES III Collab.)
	ABLIKIM 12P	CP C36 1031	M. Ablikim <i>et al.</i>	(BES II Collab.)
	HENRARD 87	NP B292 670	P. Henrard <i>et al.</i>	(CLER, FRAS, LALO+)
	EATON 84	PR D29 804	M.W. Eaton <i>et al.</i>	(LBL, SLAC)
	PERUZZI 78	PR D17 2901	I. Peruzzi <i>et al.</i>	(SLAC, LBL)

REFID=57510
REFID=54863
REFID=40261
REFID=22092
REFID=22068
NODE=M071
 $\psi(2S)$

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

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

NODE=M071

$\psi(2S)$ BRANCHING RATIOS

NODE=M071235

HADRONIC DECAYS

NODE=M071310

 $\Gamma(\Sigma(1385)^+ \bar{\Sigma}(1385)^-)/\Gamma_{\text{total}}$
 Γ_{32}/Γ

VALUE (units 10^{-5})	EVTS	DOCUMENT ID	TECN	COMMENT
8.5±0.7 OUR AVERAGE				
YOUR DATA 8.4±0.5±0.5	1.5k	ABLIKIM 16L	BES3	$\psi(2S) \rightarrow \Sigma(1385)^+ \bar{\Sigma}(1385)^-$
11 ±3 ±3	14	¹ BAI 01	BES	$e^+ e^- \rightarrow \psi(2S) \rightarrow \text{hadrons}$

NODE=M071R52
NODE=M071R52

OCCUR=2

¹ Estimated using $B(\psi(2S) \rightarrow J/\psi \pi^+ \pi^-) = 0.310 \pm 0.028$.

NODE=M071R52;LINKAGE=PP

 $\Gamma(\Sigma(1385)^- \bar{\Sigma}(1385)^+)/\Gamma_{\text{total}}$
 Γ_{33}/Γ

VALUE (units 10^{-5})	EVTS	DOCUMENT ID	TECN	COMMENT
8.5±0.6±0.6	1.4K	ABLIKIM 16L	BES3	$\psi(2S) \rightarrow \Sigma(1385)^- \bar{\Sigma}(1385)^+$

NODE=M071R00
NODE=M071R00

