Reference = ACHASOV 01B; PL B504 275
Verifier code = DRUZHININ

Normally we send all verifications for one experiment to one person, usually the spokesperson or data-analysis co-ordinator, 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

Vladimir P. Druzhinin

EMAIL: v.p.druzhinin@inp.nsk.su

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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Prospekt Lavrent'eva 11
RU-630090 Novosibirsk
Russian Federation

EMAIL: simon.eidelman@cern.ch

LIGHT UNFLAVORED MESONS ($S = C = B = 0$)

NODE=MXXX005

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

NODE=MXXX005

NODE=M004

$\phi(1020)$

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

PARAMETER β IN $\phi \to \eta e^+ e^-$ DECAY

NODE=M004BFP

NODE=M004BFP

In the one-pole approximation the electromagnetic transition form factor for $\phi \to \eta e^+ e^-$ is given as a function of the $e^+ e^-$ invariant mass squared, q^2, by the expression:

$$|F(q^2)|^2 = (1 - q^2/\Lambda^2)^{-2},$$

where vector meson dominance predicts parameter $\Lambda \approx 0.770$ GeV ($\Lambda^{-2} \approx 1.687$ GeV^{-2}). The slope of this form factor, $\beta = dF/dq^2(q^2{=}0)$, equals Λ^{-2} in this approximation.

The measurements below obtain β in the one-pole approximation.

NODE=M004BFP

VALUE (GeV^{-2})	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
1.29±0.13 OUR AVERAGE					
$1.28 \pm 0.10^{+0.09}_{-0.08}$	30k	[1] BABUSCI	15	KLOE	1.02 $e^+ e^- \to \eta e^+ e^-$
YOUR DATA 3.8 ±1.8	213	ACHASOV	01B	SND	1.02 $e^+ e^- \to \eta e^+ e^-$

[1] The uncertainty is statistical only with negligible systematic one.

NODE=M004BFP;LINKAGE=A

$\phi(1020)$ REFERENCES

NODE=M004

	BABUSCI	15	PL B742 1	D. Babusci *et al.*	(KLOE Collab.)	REFID=56374
YOUR PAPER	ACHASOV	01B	PL B504 275	M.N. Achasov *et al.*	(Novosibirsk SND Collab.)	REFID=48111