NODE=M109

$h_1(1415)$

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

$h_1(1415)$ MASS

NODE=M109M

NODE=M109M

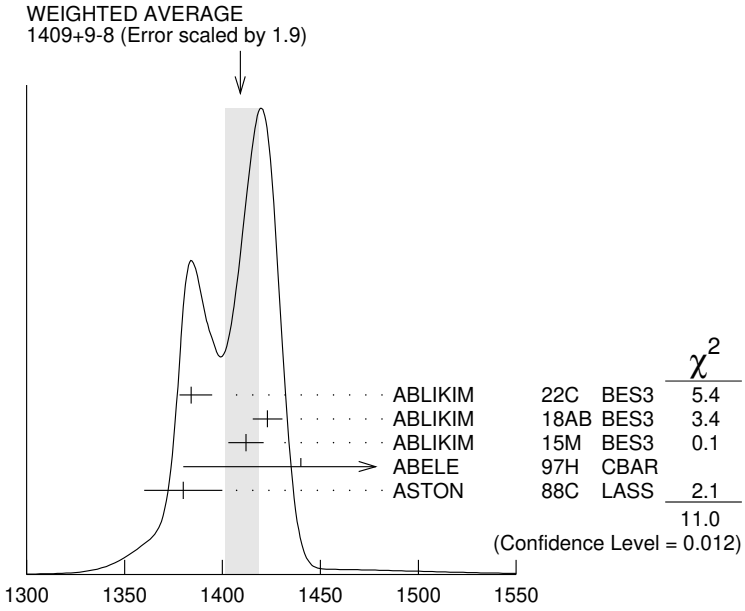
VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
1409^{+9}_{-8} OUR AVERAGE		Error includes scale factor of 1.9. See the ideogram below.			
$1384 \pm 6\ ^{+9}_{-0}$		[1] ABLIKIM	22C	BES3	$J/\psi \to \gamma\eta'\eta' \to 4/5\gamma 2(\pi^+\pi^-)$
$1423 \pm 2.1 \pm 7.3$	2.2k	[2] ABLIKIM	18AB	BES3	$J/\psi \to \eta' h_1 \to \eta' K^* \overline{K}$
$1412 \pm 4 \pm 8$		[2] ABLIKIM	15M	BES3	$\psi(2S) \to \gamma\chi_{c1,2} \to \gamma\phi(h_1 \to K^*\overline{K})$
1440 ± 60		ABELE	97H	CBAR	$\overline{p}p \to K^0_L K^0_S \pi^0\pi^0$
1380 ± 20		ASTON	88C	LASS	11 $K^- p \to K^0_S K^\pm \pi^\mp \Lambda$

[1] From a partial wave analysis of the systems (γX), with $X \to \eta'\eta'$, and $(\eta' X)$, with $X \to \gamma\eta'$ in the decay $J/\psi \to \gamma\eta'\eta'$. The intermediate resonance X is parametrized by a constant-width, relativistic Breit-Wigner.

NODE=M109M;LINKAGE=B

[2] Final states $K^+K^-\pi^0$ and $K^0_S K^\pm\pi^\mp$.

NODE=M109M;LINKAGE=A



$h_1(1415)$ MASS (MeV)

$h_1(1415)$ WIDTH

NODE=M109W

NODE=M109W

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
78 ± 11 OUR AVERAGE					
$66 \pm 10\ ^{+12}_{-10}$		[1] ABLIKIM	22C	BES3	$J/\psi \to \gamma\eta'\eta' \to 4/5\gamma 2(\pi^+\pi^-)$
$90.3 \pm 9.8 \pm 17.5$	2.2k	[2] ABLIKIM	18AB	BES3	$J/\psi \to \eta' h_1 \to \eta' K^* \overline{K}$
$84 \pm 12 \pm 40$		[2] ABLIKIM	15M	BES3	$\psi(2S) \to \gamma\chi_{c1,2} \to \gamma\phi(h_1 \to K^*\overline{K})$
170 ± 80		ABELE	97H	CBAR	$\overline{p}p \to K^0_L K^0_S \pi^0\pi^0$
80 ± 30		ASTON	88C	LASS	11 $K^- p \to K^0_S K^\pm \pi^\mp \Lambda$

[1] From a partial wave analysis of the systems (γX), with $X \to \eta'\eta'$, and $(\eta' X)$, with $X \to \gamma\eta'$ in the decay $J/\psi \to \gamma\eta'\eta'$. The intermediate resonance X is parametrized by a constant-width, relativistic Breit-Wigner.

NODE=M109W;LINKAGE=B

[2] Final states $K^+K^-\pi^0$ and $K^0_S K^\pm\pi^\mp$.

NODE=M109W;LINKAGE=A

$h_1(1415)$ DECAY MODES

NODE=M109215;NODE=M109

	Mode	
Γ_1	$K\overline{K}^*(892)+$ c.c.	DESIG=1

$h_1(1415)$ REFERENCES

NODE=M109

ABLIKIM	22C	PR D105 072002	M. Ablikim *et al.*	(BESIII Collab.)	REFID=61637
ABLIKIM	18AB	PR D98 072005	M. Ablikim *et al.*	(BESIII Collab.)	REFID=59456
ABLIKIM	15M	PR D91 112008	M. Ablikim *et al.*	(BESIII Collab.)	REFID=56778
ABELE	97H	PL B415 280	A. Abele *et al.*	(Crystal Barrel Collab.)	REFID=45765
ASTON	88C	PL B201 573	D. Aston *et al.*	(SLAC, NAGO, CINC, INUS)	REFID=40282