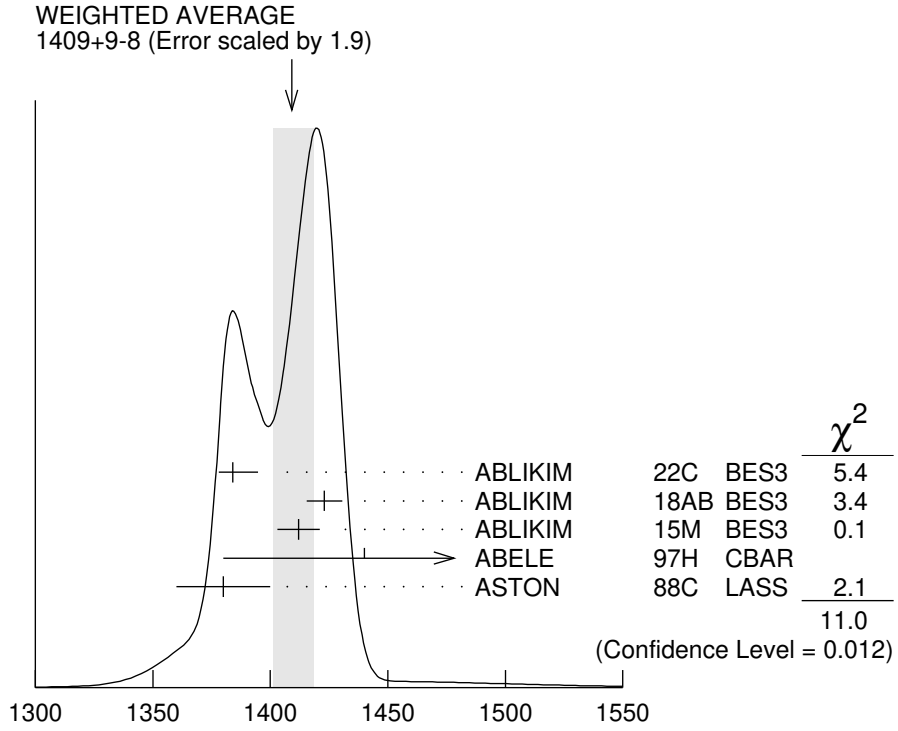
$h_1(1415)$

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

was $h_1(1380)$

$h_1(1415)$ MASS

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.

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

$h_1(1415)$ WIDTH

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
78 ±11 OUR AVERAGE					
66 ± 10 $^{+12}_{-10}$		[1] ABLIKIM	22C	BES3	$J/\psi \to \gamma\eta'\eta' \to 4/5\gamma 2(\pi^+\pi^-)$
90.3± 9.8±17.5	2.2k	[2] ABLIKIM	18AB	BES3	$J/\psi \to \eta' h_1 \to \eta' K^* \overline{K}$
84 ±12 ±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.

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

$h_1(1415)$ DECAY MODES

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

$h_1(1415)$ REFERENCES

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