$\psi(4415)$

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

$\psi(4415)$ MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
4421± 4 OUR ESTIMATE				
• • • We do not use the following data for averages, fits, limits, etc. • • •				
4425± 6	[1] SETH	05A	RVUE	$e^+e^- \rightarrow$ hadrons
4429± 9	[2] SETH	05A	RVUE	$e^+e^- \rightarrow$ hadrons
4417±10	BRANDELIK	78C	DASP	e^+e^-
4414± 7	SIEGRIST	76	MRK1	e^+e^-

[1] From a fit to Crystal Ball (OSTERHELD 86) data.
[2] From a fit to BES (BAI 02C) data.

$\psi(4415)$ WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
62±20 OUR ESTIMATE				
• • • We do not use the following data for averages, fits, limits, etc. • • •				
119±16	[3] SETH	05A	RVUE	$e^+e^- \rightarrow$ hadrons
118±35	[4] SETH	05A	RVUE	$e^+e^- \rightarrow$ hadrons
66±15	BRANDELIK	78C	DASP	e^+e^-
33±10	SIEGRIST	76	MRK1	e^+e^-

[3] From a fit to Crystal Ball (OSTERHELD 86) data.
[4] From a fit to BES (BAI 02C) data.

$\psi(4415)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	hadrons	dominant
Γ_2	e^+e^-	$(9.4\pm3.2)\times10^{-6}$

$\psi(4415)$ PARTIAL WIDTHS

$\Gamma(e^+e^-)$ Γ_2

VALUE (keV)	*DOCUMENT ID*		*TECN*	*COMMENT*
0.58±0.07 OUR ESTIMATE				
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.72±0.11	[5] SETH	05A	RVUE	$e^+e^- \rightarrow$ hadrons
0.64±0.23	[6] SETH	05A	RVUE	$e^+e^- \rightarrow$ hadrons
0.49±0.13	BRANDELIK	78C	DASP	e^+e^-
0.44±0.14	SIEGRIST	76	MRK1	e^+e^-

[5] From a fit to Crystal Ball (OSTERHELD 86) data.
[6] From a fit to BES (BAI 02C) data.

$\psi(4415)$ BRANCHING RATIOS

$\Gamma(\text{hadrons})/\Gamma_{\text{total}}$ **Γ_1/Γ**

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
dominant	SIEGRIST	76	MRK1	$e^+ e^-$

$\psi(4415)$ REFERENCES

SETH	05A	PR D72 017501	K.K. Seth	
BAI	02C	PRL 88 101802	J.Z. Bai *et al.*	(BES Collab.)
OSTERHELD	86	SLAC-PUB-4160	A. Osterheld *et al.*	(SLAC Crystal Ball Collab.)
BRANDELIK	78C	PL 76B 361	R. Brandelik *et al.*	(DASP Collab.)
SIEGRIST	76	PRL 36 700	J.L. Siegrist *et al.*	(LBL, SLAC)

OTHER RELATED PAPERS

PAKHLOVA	07	PRL 98 092001	G. Pakhlova *et al.*	(BELLE Collab.)
BURMESTER	77	PL 66B 395	J. Burmester *et al.*	(DESY, HAMB, SIEG+)
LUTH	77	PL 70B 120	V. Luth *et al.*	(LBL, SLAC)