$\omega(1420)$

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

See also $\omega(1600)$.

$\omega(1420)$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
1419±31	315	[1] ANTONELLI	92	DM2	1.34–2.4 $e^+ e^- \to \rho\pi$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1440±70		[2] CLEGG	94	RVUE	

[1] From a fit to two Breit-Wigner functions interfering between them and with the ω,ϕ tails with fixed (+,−,+) phases.
[2] Using data published by ANTONELLI 92.

$\omega(1420)$ WIDTH

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
174±59	315	[3] ANTONELLI	92	DM2	1.34–2.4 $e^+ e^- \to \rho\pi$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
240±70		[4] CLEGG	94	RVUE	

[3] From a fit to two Breit-Wigner functions interfering between them and with the ω,ϕ tails with fixed (+,−,+) phases.
[4] Using data published by ANTONELLI 92.

$\omega(1420)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\rho\pi$	dominant
Γ_2	$\omega\pi\pi$	
Γ_3	$e^+ e^-$	

$\omega(1420)$ Γ(i)$\Gamma(e^+ e^-)/\Gamma$(total)

$\Gamma(\rho\pi) \times \Gamma(e^+ e^-)/\Gamma_{\text{total}}$ $\Gamma_1\Gamma_3/\Gamma$

VALUE (eV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
81±31	315	[5] ANTONELLI	92	DM2	1.34–2.4 $e^+ e^- \to \rho\pi$

[5] From a fit to two Breit-Wigner functions interfering between them and with the ω,ϕ tails with fixed (+,−,+) phases.

$\omega(1420)$ REFERENCES

CLEGG	94	ZPHY C62 455	+Donnachie	(LANC, MCHS)
ANTONELLI	92	ZPHY C56 15	+Baldini+	(DM2 Collab.)

OTHER RELATED PAPERS

ATKINSON	87	ZPHY C34 157	+	(BONN, CERN, GLAS, LANC, MCHS, CURIN)
ATKINSON	84	NP B231 15	+	(BONN, CERN, GLAS, LANC, MCHS, CURIN+)
ATKINSON	83B	PL 127B 132	+	(BONN, CERN, GLAS, LANC, MCHS, CURIN+)