$\pi(1300)$

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

$\pi(1300)$ MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
1300±100 OUR ESTIMATE				
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1275± 15	BERTIN	97D	OBLX	0.05 $\overline{p}p \rightarrow 2\pi^+ 2\pi^-$
∼ 1114	ABELE	96	CBAR	0.0 $\overline{p}p \rightarrow 5\pi^0$
1190± 30	ZIELINSKI	84	SPEC	200 $\pi^+ Z \rightarrow Z 3\pi$
1240± 30	BELLINI	82	SPEC	40 $\pi^- A \rightarrow A 3\pi$
1273± 50	[1] AARON	81	RVUE	
1342± 20	BONESINI	81	OMEG	12 $\pi^- p \rightarrow p 3\pi$
∼ 1400	DAUM	81B	SPEC	63,94 $\pi^- p$

[1] Uses multichannel Aitchison-Bowler model (BOWLER 75). Uses data from DAUM 80 and DANKOWYCH 81.

$\pi(1300)$ WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
200 to 600 OUR ESTIMATE				
• • • We do not use the following data for averages, fits, limits, etc. • • •				
218±100	BERTIN	97D	OBLX	0.05 $\overline{p}p \rightarrow 2\pi^+ 2\pi^-$
∼ 340	ABELE	96	CBAR	0.0 $\overline{p}p \rightarrow 5\pi^0$
440± 80	ZIELINSKI	84	SPEC	200 $\pi^+ Z \rightarrow Z 3\pi$
360±120	BELLINI	82	SPEC	40 $\pi^- A \rightarrow A 3\pi$
580±100	[2] AARON	81	RVUE	
220± 70	BONESINI	81	OMEG	12 $\pi^- p \rightarrow p 3\pi$
∼ 600	DAUM	81B	SPEC	63,94 $\pi^- p$

[2] Uses multichannel Aitchison-Bowler model (BOWLER 75). Uses data from DAUM 80 and DANKOWYCH 81.

$\pi(1300)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\rho\pi$	seen
Γ_2	$\pi(\pi\pi)_{S\text{-wave}}$	seen
Γ_3	$\gamma\gamma$	

$\pi(1300)$ $\Gamma(i)\Gamma(\gamma\gamma)/\Gamma(\text{total})$

$\Gamma(\rho\pi) \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}}$ — $\Gamma_1\Gamma_3/\Gamma$

VALUE (keV)	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<0.085	90	ACCIARRI	97T	L3	$e^+e^- \to e^+e^-\pi^+\pi^-\pi^0$
<0.54	90	ALBRECHT	97B	ARG	$e^+e^- \to e^+e^-\pi^+\pi^-\pi^0$

$\Gamma(\pi(\pi\pi)_{S\text{-wave}})/\Gamma(\rho\pi)$ — Γ_2/Γ_1

VALUE	*DOCUMENT ID*		*TECN*
• • • We do not use the following data for averages, fits, limits, etc. • • •			
2.12	[3] AARON	81	RVUE

[3] Uses multichannel Aitchison-Bowler model (BOWLER 75). Uses data from DAUM 80 and DANKOWYCH 81.

$\pi(1300)$ REFERENCES

ACCIARRI	97T	PL B413 147	M. Acciarri+	
ALBRECHT	97B	ZPHY C74 469	+Hamacher, Hofmann+	(ARGUS Collab.)
BERTIN	97D	PL B414 220	A. Bertin+	(OBELIX Collab.)
ABELE	96	PL B380 453	+Adomeit, Amsler+	(Crystal Barrel Collab.)
ZIELINSKI	84	PR D30 1855	+Berg, Chandlee, Cihangir+	(ROCH, MINN, FNAL)
BELLINI	82	PRL 48 1697	+Frabetti, Ivanshin, Litkin+	(MILA, BGNA, JINR)
AARON	81	PR D24 1207	+Longacre	(NEAS, BNL)
BONESINI	81	PL 103B 75	+Donald+	(MILA, LIVP, DARE, CERN, BARI, BONN)
DANKOWY...	81	PRL 46 580	Dankowych+	(TNTO, BNL, CARL, MCGI, OHIO)
DAUM	81B	NP B182 269	+Hertzberger+	(AMST, CERN, CRAC, MPIM, OXF+)
DAUM	80	PL 89B 281	+Hertzberger+	(AMST, CERN, CRAC, MPIM, OXF+)
BOWLER	75	NP B97 227	+Game, Aitchison, Dainton	(OXFTP, DARE)

OTHER RELATED PAPERS

ACKERSTAFF	97R	ZPHY C75 593	K. Ackerstaff+	(OPAL Collab.)
ALBRECHT	95C	PL B349 576	+Hamacher, Hofmann, Kirchoff+	(ARGUS Collab.)