$\pi(1300)$

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

$\pi(1300)$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
1300±100 OUR ESTIMATE					
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1345± 8±10	18k	[1] SCHEGELSKY	06	RVUE	$\gamma\gamma \to \pi^+\pi^-\pi^0$
1343± 15±24		CHUNG	02	B852	18.3 $\pi^- p \to \pi^+\pi^-\pi^- p$
1375± 40		ABELE	01	CBAR	0.0 $\overline{p}d \to \pi^- 4\pi^0 p$
1275± 15		BERTIN	97D	OBLX	0.05 $\overline{p}p \to 2\pi^+ 2\pi^-$
~ 1114		ABELE	96	CBAR	0.0 $\overline{p}p \to 5\pi^0$
1190± 30		ZIELINSKI	84	SPEC	200 π^+ Z → Z3π
1240± 30		BELLINI	82	SPEC	40 π^- A → A3π
1273± 50		[2] AARON	81	RVUE	
1342± 20		BONESINI	81	OMEG	12 $\pi^- p \to p3\pi$
~ 1400		DAUM	81B	SPEC	63,94 $\pi^- p$

[1] From analysis of L3 data at 183–209 GeV.
[2] Uses multichannel Aitchison-Bowler model (BOWLER 75). Uses data from DAUM 80 and DANKOWYCH 81.

$\pi(1300)$ WIDTH

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
200 to 600 OUR ESTIMATE					
• • • We do not use the following data for averages, fits, limits, etc. • • •					
260± 20±30	18k	[3] SCHEGELSKY	06	RVUE	$\gamma\gamma \to \pi^+\pi^-\pi^0$
449± 39±47		CHUNG	02	B852	18.3 $\pi^- p \to \pi^+\pi^-\pi^- p$
268± 50		ABELE	01	CBAR	0.0 $\overline{p}d \to \pi^- 4\pi^0 p$
218±100		BERTIN	97D	OBLX	0.05 $\overline{p}p \to 2\pi^+ 2\pi^-$
~ 340		ABELE	96	CBAR	0.0 $\overline{p}p \to 5\pi^0$
440± 80		ZIELINSKI	84	SPEC	200 π^+ Z → Z3π
360±120		BELLINI	82	SPEC	40 π^- A → A3π
580±100		[4] AARON	81	RVUE	
220± 70		BONESINI	81	OMEG	12 $\pi^- p \to p3\pi$
~ 600		DAUM	81B	SPEC	63,94 $\pi^- p$

[3] From analysis of L3 data at 183–209 GeV.
[4] 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	$\gamma\gamma$	

$\pi(1300)$ $\Gamma(i)\Gamma(\gamma\gamma)/\Gamma(total)$

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

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

• • • We do not use the following data for averages, fits, limits, etc. • • •

<0.8	95	[5] SCHEGELSKY	06	RVUE	$\gamma\gamma \to \pi^+\pi^-\pi^0$
<0.54	90	ALBRECHT	97B	ARG	$e^+e^- \to e^+e^-\pi^+\pi^-\pi^0$

[5] From analysis of L3 data at 183–209 GeV.

$\pi(1300)$ BRANCHING RATIOS

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

VALUE	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •					
seen		CHUNG	02	B852	18.3 $\pi^- p \to \pi^+\pi^-\pi^- p$
<0.15	90	ABELE	01	CBAR	0.0 $\overline{p}d \to \pi^- 4\pi^0 p$
2.12		[6] AARON	81	RVUE	

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

$\pi(1300)$ REFERENCES

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ABELE	01	EPJ C19 667	A. Abele *et al.*	(Crystal Barrel Collab.)
ACCIARRI	97T	PL B413 147	M. Acciarri *et al.*	(L3 Collab.)
ALBRECHT	97B	ZPHY C74 469	H. Albrecht *et al.*	(ARGUS Collab.)
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ABELE	96	PL B380 453	A. Abele *et al.*	(Crystal Barrel Collab.)
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