

$\rho(1900)$

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

OMITTED FROM SUMMARY TABLE
See the review on "Spectroscopy of Light Meson Resonances."

$\rho(1900)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1880±10		¹ ABLIKIM	22L BES3	2.0–3.08 $e^{+}e^{-} \rightarrow K^{+}K^{-}\pi^{0}$
1909±17±25	54	² AUBERT	08S BABR	10.6 $e^{+}e^{-} \rightarrow \phi\pi^{0}\gamma$
1880±30		AUBERT	06D BABR	10.6 $e^{+}e^{-} \rightarrow 3\pi^{+}3\pi^{-}\gamma$
1860±20		AUBERT	06D BABR	10.6 $e^{+}e^{-} \rightarrow 2(\pi^{+}\pi^{-}\pi^{0})\gamma$
1910±10		^{3,4} FRABETTI	04 E687	$\gamma p \rightarrow 3\pi^{+}3\pi^{-}p$
1870±10		ANTONELLI	96 SPEC	$e^{+}e^{-} \rightarrow$ hadrons
¹ From a partial wave amplitude analysis at $\sqrt{s} = 2.125$ GeV which includes all the possible intermediate states that match J^{PC} conservation in the subsequent two-body decay. The intermediate states are parameterized with the relativistic Breit-Wigner functions. Statistical error only.				
² From the fit with two resonances.				
³ From a fit with two resonances with the JACOB 72 continuum.				
⁴ Supersedes FRABETTI 01.				

$\rho(1900)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
69±15		¹ ABLIKIM	22L BES3	2.0–3.08 $e^{+}e^{-} \rightarrow K^{+}K^{-}\pi^{0}$
48±17±2	54	² AUBERT	08S BABR	10.6 $e^{+}e^{-} \rightarrow \phi\pi^{0}\gamma$
130±30		AUBERT	06D BABR	10.6 $e^{+}e^{-} \rightarrow 3\pi^{+}3\pi^{-}\gamma$
160±20		AUBERT	06D BABR	10.6 $e^{+}e^{-} \rightarrow 2(\pi^{+}\pi^{-}\pi^{0})\gamma$
37±13		^{3,4} FRABETTI	04 E687	$\gamma p \rightarrow 3\pi^{+}3\pi^{-}p$
10± 5		ANTONELLI	96 SPEC	$e^{+}e^{-} \rightarrow$ hadrons
¹ From a partial wave amplitude analysis at $\sqrt{s} = 2.125$ GeV which includes all the possible intermediate states that match J^{PC} conservation in the subsequent two-body decay. The intermediate states are parameterized with the relativistic Breit-Wigner functions. Statistical error only.				
² From the fit with two resonances.				
³ From a fit with two resonances with the JACOB 72 continuum.				
⁴ Supersedes FRABETTI 01.				

$\rho(1900)$ $\Gamma(i)\Gamma(e^{+}e^{-})/\Gamma^2(\text{total})$

$\Gamma(\phi\pi)/\Gamma_{\text{total}} \times \Gamma(e^{+}e^{-})/\Gamma_{\text{total}}$		$\Gamma_4/\Gamma \times \Gamma_6/\Gamma$		
VALUE (units 10^{-8})	EVTS	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
4.2±1.2±0.8	54	¹ AUBERT	08S BABR	10.6 $e^{+}e^{-} \rightarrow \phi\pi^{0}\gamma$
¹ From the fit with two resonances.				

$\rho(1900)$ DECAY MODES

Mode		Fraction (Γ_i/Γ)
Γ_1	6π	seen
Γ_2	$3\pi^+ 3\pi^-$	seen
Γ_3	$2\pi^+ 2\pi^- 2\pi^0$	
Γ_4	$\phi\pi$	seen
Γ_5	hadrons	seen
Γ_6	$e^+ e^-$	seen
Γ_7	$\overline{N} N$	not seen

$\rho(1900)$ BRANCHING RATIOS

$\Gamma(6\pi)/\Gamma_{\text{total}}$					Γ_1/Γ
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	
seen	8k	AKHMETSHIN 13	CMD3	$e^+ e^- \rightarrow 3\pi^+ 3\pi^-$	
not seen		AGNELLO 02	OBLX	$\overline{n} p \rightarrow 3\pi^+ 2\pi^- \pi^0$	
seen		FRABETTI 01	E687	$\gamma p \rightarrow 3\pi^+ 3\pi^- p$	
seen		ANTONELLI 96	SPEC	$e^+ e^- \rightarrow \text{hadrons}$	

$\rho(1900)$ REFERENCES

ABLIKIM	22L	JHEP 2207 045	M. Ablikim <i>et al.</i>	(BESIII Collab.)
AKHMETSHIN	13	PL B723 82	R.R. Akhmetshin <i>et al.</i>	(CMD-3 Collab.)
AUBERT	08S	PR D77 092002	B. Aubert <i>et al.</i>	(BABAR Collab.)
AUBERT	06D	PR D73 052003	B. Aubert <i>et al.</i>	(BABAR Collab.)
FRABETTI	04	PL B578 290	P.L. Frabetti <i>et al.</i>	(FNAL E687 Collab.)
AGNELLO	02	PL B527 39	M. Agnello <i>et al.</i>	(OBELIX Collab.)
FRABETTI	01	PL B514 240	P.L. Frabetti <i>et al.</i>	(FNAL E687 Collab.)
ANTONELLI	96	PL B365 427	A. Antonelli <i>et al.</i>	(FENICE Collab.)
JACOB	72	PR D5 1847	M. Jacob, R. Slansky	