

$\rho(1900)$

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

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 $e^+e^- \rightarrow \phi\pi^0\gamma$
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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 $\bar{N} N$	not seen

$\rho(1900)$ BRANCHING RATIOS

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