

**$\rho(1900)$** 

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

OMITTED FROM SUMMARY TABLE

See our mini-review under the  $\rho(1700)$ . **$\rho(1900)$  MASS**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
$1909 \pm 17 \pm 25$	54	<sup>1</sup> AUBERT	08S BABR	$10.6 e^+ e^- \rightarrow \phi \pi^0 \gamma$
$1880 \pm 30$		AUBERT	06D BABR	$10.6 e^+ e^- \rightarrow 3\pi^+ 3\pi^- \gamma$
$1860 \pm 20$		AUBERT	06D BABR	$10.6 e^+ e^- \rightarrow 2(\pi^+ \pi^- \pi^0) \gamma$
$1910 \pm 10$		<sup>2,3</sup> FRABETTI	04 E687	$\gamma p \rightarrow 3\pi^+ 3\pi^- p$
$1870 \pm 10$		ANTONELLI	96 SPEC	$e^+ e^- \rightarrow \text{hadrons}$

<sup>1</sup> From the fit with two resonances.<sup>2</sup> From a fit with two resonances with the JACOB 72 continuum.<sup>3</sup> 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. ● ● ●				
$48 \pm 17 \pm 2$	54	<sup>4</sup> AUBERT	08S BABR	$10.6 e^+ e^- \rightarrow \phi \pi^0 \gamma$
$130 \pm 30$		AUBERT	06D BABR	$10.6 e^+ e^- \rightarrow 3\pi^+ 3\pi^- \gamma$
$160 \pm 20$		AUBERT	06D BABR	$10.6 e^+ e^- \rightarrow 2(\pi^+ \pi^- \pi^0) \gamma$
$37 \pm 13$		<sup>5,6</sup> FRABETTI	04 E687	$\gamma p \rightarrow 3\pi^+ 3\pi^- p$
$10 \pm 5$		ANTONELLI	96 SPEC	$e^+ e^- \rightarrow \text{hadrons}$

<sup>4</sup> From the fit with two resonances.<sup>5</sup> From a fit with two resonances with the JACOB 72 continuum.<sup>6</sup> Supersedes FRABETTI 01. **$\rho(1900)$   $\Gamma(i)\Gamma(e^+ e^-)/\Gamma^2(\text{total})$** 

VALUE (units $10^{-8}$ )	EVTS	DOCUMENT ID	TECN	COMMENT
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
$4.2 \pm 1.2 \pm 0.8$	54	<sup>7</sup> AUBERT	08S BABR	$10.6 e^+ e^- \rightarrow \phi \pi^0 \gamma$

<sup>7</sup> From the fit with two resonances.

**$\rho(1900)$  DECAY MODES**

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $6\pi$	seen
$\Gamma_2$ $3\pi^+ 3\pi^-$	seen
$\Gamma_3$ $2\pi^+ 2\pi^- 2\pi^0$	
$\Gamma_4$ $\phi\pi$	
$\Gamma_5$ hadrons	seen
$\Gamma_6$ $e^+ e^-$	seen
$\Gamma_7$ $\bar{N} N$	not seen

 **$\rho(1900)$  BRANCHING RATIOS**

$\Gamma(6\pi)/\Gamma_{\text{total}}$					$\Gamma_1/\Gamma$
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	
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	$e^+ e^- \rightarrow \text{hadrons}$	

 **$\rho(1900)$  REFERENCES**

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	