$\rho(1570)$

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

OMITTED FROM SUMMARY TABLE

May be an OZI-violating decay mode of $\rho(1700)$. See our review in $\rho(1700)$ section.

$\rho(1570)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
1570±36±62	54	[1] AUBERT	08S	BABR	10.6 $e^+e^- \to \phi\pi^0\gamma$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1480±40		[2] BITYUKOV	87	SPEC	32.5 $\pi^- p \to \phi\pi^0 n$

[1] From the fit with two resonances.
[2] Systematic errors not estimated.

$\rho(1570)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
144±75±43	54	[3] AUBERT	08S	BABR	10.6 $e^+e^- \to \phi\pi^0\gamma$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
130±60		[4] BITYUKOV	87	SPEC	32.5 $\pi^- p \to \phi\pi^0 n$

[3] From the fit with two resonances.
[4] Systematic errors not estimated.

$\rho(1570)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	e^+e^-	
Γ_2	$\phi\pi$	not seen
Γ_3	$\omega\pi$	

$\rho(1570)$ $\Gamma(i)\Gamma(e^+e^-)/\Gamma(total)$

$\Gamma(\phi\pi) \times \Gamma(e^+e^-)/\Gamma_{total}$ **$\Gamma_2\Gamma_1/\Gamma$**

VALUE (eV)	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
3.5±0.9±0.3		54	[5] AUBERT	08S	BABR	10.6 $e^+e^- \to \phi\pi^0\gamma$
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<70	90		[6] AULCHENKO	87B	ND	$e^+e^- \to K^0_S K^0_L \pi^0$

[5] From the fit with two resonances.
[6] Using mass and width of BITYUKOV 87.

$\rho(1570)$ BRANCHING RATIOS

$\Gamma(\phi\pi)/\Gamma_{\text{total}}$ Γ_2/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
not seen	ABELE	97H	CBAR	$\overline{p}p \to K^0_L K^0_S \pi^0 \pi^0$

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

<0.01	[7] DONNACHIE	91	RVUE	

[7] Using data from BISELLO 91B, DOLINSKY 86, and ALBRECHT 87L.

$\Gamma(\phi\pi)/\Gamma(\omega\pi)$ Γ_2/Γ_3

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
>0.5	95	BITYUKOV	87	SPEC	32.5 $\pi^- p \to \phi\pi^0 n$

$\rho(1570)$ REFERENCES

AUBERT	08S	PR D77 092002	B. Aubert *et al.*	(BABAR Collab.)
ABELE	97H	PL B415 280	A. Abele *et al.*	(Crystal Barrel Collab.)
BISELLO	91B	NPBPS B21 111	D. Bisello	(DM2 Collab.)
DONNACHIE	91	ZPHY C51 689	A. Donnachie, A.B. Clegg	(MCHS, LANC)
ALBRECHT	87L	PL B185 223	H. Albrecht *et al.*	(ARGUS Collab.)
AULCHENKO	87B	JETPL 45 145	V.M. Aulchenko *et al.*	(NOVO)
		Translated from ZETFP 45 118.		
BITYUKOV	87	PL B188 383	S.I. Bityukov *et al.*	(SERP)
DOLINSKY	86	PL B174 453	S.I. Dolinsky *et al.*	(NOVO)