$f_1(1285)$ $\Gamma(i)\Gamma(\gamma\gamma)/\Gamma(\text{total})$

$\Gamma(\eta\pi\pi) \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}}$ $\Gamma_6\Gamma_{14}/\Gamma = (\Gamma_7+\Gamma_8)\Gamma_{14}/\Gamma$

VALUE (keV)	CL%	DOCUMENT ID		TECN	COMMENT
<0.62	95	GIDAL	87	MRK2	$e^+e^- \to e^+e^-\eta\pi^+\pi^-$

$\Gamma(\eta\pi\pi) \times \Gamma(\gamma\gamma^*)/\Gamma_{\text{total}}$ $\Gamma_6\Gamma_{13}/\Gamma = (\Gamma_7+\Gamma_8)\Gamma_{13}/\Gamma$

VALUE (keV)	EVTS	DOCUMENT ID		TECN	COMMENT
1.4 ±0.4 OUR AVERAGE		Error includes scale factor of 1.4.			
1.18±0.25±0.20	26	[9,10] AIHARA	88B	TPC	$e^+e^- \to e^+e^-\eta\pi^+\pi^-$
2.30±0.61±0.42		[9,11] GIDAL	87	MRK2	$e^+e^- \to e^+e^-\eta\pi^+\pi^-$

[9] Assuming a ρ-pole form factor.
[10] Published value multiplied by $\eta\pi\pi$ branching ratio 0.49.
[11] Published value divided by 2 and multiplied by the $\eta\pi\pi$ branching ratio 0.49.

$f_1(1285)$ BRANCHING RATIOS

$\Gamma(K\overline{K}\pi)/\Gamma(4\pi)$ $\Gamma_9/\Gamma_1 = \Gamma_9/(\Gamma_2+\Gamma_3)$

VALUE	DOCUMENT ID		TECN	COMMENT
0.33±0.04 OUR FIT	Error includes scale factor of 1.2.			
0.32±0.04 OUR AVERAGE	Error includes scale factor of 1.2.			
0.28±0.05	[12] ARMSTRONG	89E	OMEG	300 $pp \to pp f_1(1285)$
0.37±0.03±0.05	[13] ARMSTRONG	89G	OMEG	85 $\pi p \to 4\pi X$

[12] Assuming $\rho\pi\pi$ and $a_0(980)\pi$ intermediate states.
[13] 4π consistent with being entirely $\rho\pi\pi$.

$\Gamma(K\overline{K}\pi)/\Gamma(\eta\pi\pi)$ $\Gamma_9/\Gamma_6 = \Gamma_9/(\Gamma_7+\Gamma_8)$

VALUE	DOCUMENT ID		TECN	COMMENT
0.18±0.04 OUR FIT	Error includes scale factor of 1.1.			
0.23±0.06 OUR AVERAGE	Error includes scale factor of 1.2.			
0.42±0.15	GURTU	79	HBC	4.2 $K^- p$
0.5 ±0.2	CORDEN	78	OMEG	12–15 $\pi^- p$
0.20±0.08	[14] DEFOIX	72	HBC	0.7 $\overline{p}p \to 7\pi$
0.16±0.08	CAMPBELL	69	DBC	2.7 $\pi^+ d$

[14] $K\overline{K}$ system characterized by the $I = 1$ threshold enhancement. (See under $a_0(980)$).

$\Gamma(a_0(980)\pi$ [ignoring $a_0(980) \to K\overline{K}$]$)/\Gamma(\eta\pi\pi)$ $\Gamma_7/\Gamma_6 = \Gamma_7/(\Gamma_7+\Gamma_8)$

VALUE	DOCUMENT ID		TECN	COMMENT
0.82±0.12 OUR FIT	Error includes scale factor of 1.1.			
$\mathbf{0.69^{+0.13}_{-0.12}}$ **OUR AVERAGE**				
0.72±0.15	GURTU	79	HBC	4.2 $K^- p$
$0.6\ ^{+0.3}_{-0.2}$	CORDEN	78	OMEG	12–15 $\pi^- p$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1.0 ±0.3	GRASSLER	77	HBC	16 $\pi^\mp p$

$\Gamma(4\pi)/\Gamma(\eta\pi\pi)$ $\Gamma_1/\Gamma_6 = (\Gamma_2+\Gamma_3)/(\Gamma_7+\Gamma_8)$

VALUE	DOCUMENT ID		TECN	COMMENT
0.54±0.12 OUR FIT	Error includes scale factor of 1.1.			
0.41±0.14 OUR AVERAGE				
0.37±0.11±0.11	BOLTON	92	MRK3	$J/\psi \to \gamma f_1(1285)$
0.64±0.40	GURTU	79	HBC	4.2 $K^- p$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.93±0.30	[15] GRASSLER	77	HBC	16 $\pi^\mp p$

[15] Assuming $\rho\pi\pi$ and $a_0(980)\pi$ intermediate states.

$\Gamma(K\overline{K}^*(892))/\Gamma_{\text{total}}$ Γ_{10}/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
not seen	NACASCH	78	HBC	0.7,0.76 $\overline{p}p \to K\overline{K}3\pi$

$\Gamma(\rho^0\pi^+\pi^-)/\Gamma(2\pi^+2\pi^-)$ Γ_4/Γ_3

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1.0±0.4	GRASSLER	77	HBC	16 GeV $\pi^\pm p$

$\Gamma(4\pi^0)/\Gamma_{\text{total}}$ Γ_5/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<7	90	ALDE	87	GAM4	100 $\pi^- p \to 4\pi^0 n$

$\Gamma(\phi\gamma)/\Gamma(K\overline{K}\pi)$ Γ_{12}/Γ_9

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
0.82±0.21±0.20	19	BITYUKOV	88	SPEC	32.5 $\pi^- p \to K^+K^-\pi^0 n$

$\Gamma(\gamma\rho^0)/\Gamma(K\overline{K}\pi)$ Γ_{11}/Γ_9

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
>0.035	90	[16] COFFMAN	90	MRK3	$J/\psi \to \gamma\gamma\pi^+\pi^-$

[16] Using B($J/\psi \to \gamma f_1(1285) \to \gamma\gamma\rho^0$)=0.25 × 10^{-4} and B($J/\psi \to \gamma f_1(1285) \to \gamma K\overline{K}\pi$)=< 0.72 × 10^{-3}.

$\Gamma(\gamma\rho^0)/\Gamma(2\pi^+2\pi^-)$ Γ_{11}/Γ_3

VALUE	DOCUMENT ID		TECN	COMMENT
0.45±0.18 OUR FIT				
0.45±0.18	[17] COFFMAN	90	MRK3	$J/\psi \to \gamma\gamma\pi^+\pi^-$

[17] Using B($J/\psi \to \gamma f_1(1285) \to \gamma\gamma\rho^0$)=0.25 × 10^{-4} and B($J/\psi \to \gamma f_1(1285) \to \gamma 2\pi^+2\pi^-$)=0.55 × 10^{-4} given by MIR 88.

$\Gamma(\gamma\rho^0)/\Gamma(a_0(980)\pi$ [ignoring $a_0(980) \to K\overline{K}$]$)$ Γ_{11}/Γ_7

VALUE	DOCUMENT ID		TECN	COMMENT
0.15±0.04 OUR FIT	Error includes scale factor of 1.6.			
0.10±0.03±0.02	[18] BURCHELL	91	MRK3	$J/\psi \to \gamma\eta\pi^+\pi^-$

[18] Uses a result from COFFMAN 90, and includes an unknown branching ratio for $a_0(980) \to \eta\pi$.

$\Gamma(\gamma\rho^0)/\Gamma_{\text{total}}$ Γ_{11}/Γ

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.05	95	BITYUKOV	91B	SPEC	32 $\pi^- p \to \pi^+\pi^-\gamma n$

$\Gamma(\eta\pi\pi)/\Gamma(\gamma\rho^0)$ $\Gamma_6/\Gamma_{11} = (\Gamma_7+\Gamma_8)/\Gamma_{11}$

VALUE	DOCUMENT ID		TECN	COMMENT
8.2±1.6 OUR FIT	Error includes scale factor of 1.8.			
7.5±1.0	[19] ARMSTRONG	92C	OMEG	300 $pp \to pp\pi^+\pi^-\gamma$, $pp\eta\pi^+\pi^-$

[19] Published value multiplied by 1.5.

$f_1(1285)$ REFERENCES

ARMSTRONG	93C	PL B307 394	+Bettoni+	(FNAL, FERR, GENO, UCI, NWES+)
ARMSTRONG	92C	ZPHY C54 371	+Barnes, Benayoun+	(ATHU, BARI, BIRM, CERN, CDEF)
BOLTON	92	PL B278 495	+Brown, Bunnell+	(Mark III Collab.)
BITYUKOV	91B	SJNP 54 318	+Borisov, Viktorov+	(SERP)
		Translated from YAF 54 529.		
BURCHELL	91	NP B21 132 (suppl)		(Mark III Collab.)
FUKUI	91C	PL B267 293	+	(SUGI, NAGO, KEK, KYOT, MIYA, AKIT)
AUGUSTIN	90	PR D42 10	+Cosme+	(DM2 Collab.)
COFFMAN	90	PR D41 1410	+De Jongh+	(Mark III Collab.)
TAKAMATSU	90	Hadron 89 Conf. p 71	+Ando+	(KEK)
ARMSTRONG	89	PL B221 216	+Benayoun+	(CERN, CDEF, BIRM, BARI, ATHU, CURIN+) JPC
ARMSTRONG	89E	PL B228 536	+Benayoun	(ATHU, BARI, BIRM, CERN, CDEF, CURIN+)
ARMSTRONG	89G	ZPHY C43 55	+Bloodworth+	(CERN, BIRM, BARI, ATHU, CURIN+)
RATH	89	PR D40 693	+Cason+	(NDAM, BRAN, BNL, CUNY, DUKE)
AIHARA	88B	PL B209 107	+Alston-Garnjost+	(TPC-2γ Collab.)
BIRMAN	88	PRL 61 1557	+Chung, Peaslee+	(BNL, FSU, IND, MASD) JP
BITYUKOV	88	PL B203 327	+Borisov, Dorofeev+	(SERP)
MIR	88	Photon-Photon 88 Conf., 126		(Mark III Collab.)
ALDE	87	PL B198 286	+Binon, Bricman+	(LANL, BRUX, SERP, LAPP)
BECKER	87	PRL 59 186	+Blaylock, Bolton, Brown+	(Mark III Collab.)
GIDAL	87	PRL 59 2012	+Boyer, Butler, Cords, Abrams+	(LBL, SLAC, HARV)
ANDO	86	PRL 57 1296	+Imai+	(KEK, KYOT, NIRS, SAGA, INUS, TSUK+) IJP
REEVES	86	PR 34 1960	+Chung, Crittenden+	(FLOR, BNL, IND, MASD) JP
CHUNG	85	PRL 55 779	+Fernow, Boehnlein+	(BNL, FLOR, IND, MASD) JP
ARMSTRONG	84	PL 146B 273	+Bloodworth, Burns+	(ATHU, BARI, BIRM, CERN) JP
BITUKOV	84	PL 144B 133	+Dorofeev, Dzhelyadin, Golovkin, Kulik+	(SERP)
CHAUVAT	84	PL 148B 382	+Meritet, Bonino+	(CERN, CLER, UCLA, SACL)
TORNQVIST	82B	NP B203 268		(HELS)
EVANGELISTA	81	NP B178 197	+	(BARI, BONN, CERN, DARE, LIVP+)
BROMBERG	80	PR D22 1513	+Haggerty, Abrams, Dzierba	(CIT, FNAL, ILLC, IND)
DIONISI	80	NP B169 1	+Gavillet+	(CERN, MADR, CDEF, STOH)
GURTU	79	NP B151 181	+Gavillet, Blokzijl+	(CERN, ZEEM, NIJM, OXF)
STANTON	79	PRL 42 346	+Brockman+	(OSU, CARL, MCGI, TNTO) JP
CORDEN	78	NP B144 253	+Corbett, Alexander+	(BIRM, RHEL, TELA, LOWC) JP
NACASCH	78	NP B135 203	+Defoix, Dobrzynski+	(PARIS, MADR, CERN)
GRASSLER	77	NP B121 189	+	(AACH3, BERL, BONN, CERN, CRAC, HEIDH+)
DEFOIX	72	NP B44 125	+Nascimento, Bizzarri+	(CDEF, CERN)
DUBOC	72	NP B46 429	+Goldberg, Makowski, Donald+	(PARIS, LIVP)
THUN	72	PRL 28 1733	+Blieden, Finocchiaro, Bowen+	(STON, NEAS)
BARDADIN-...	71	PR D4 2711	Bardadin-Otwinowska, Hofmokl+	(WARS)
BOESEBECK	71	PL 34B 659		(AACH, BERL, BONN, CERN, CRAC, HEID, WARS)
CAMPBELL	69	PRL 22 1204	+Lichtman, Loeffler+	(PURD)
LORSTAD	69	NP B14 63	+D'Andlau, Astier+	(CDEF, CERN) JP
D'ANDLAU	68	NP B5 693	+Astier, Barlow+	(CDEF, CERN, IRAD, LIVP) IJP
DAHL	67	PR 163 1377	+Hardy, Hess, Kirz, Miller	(LRL) IJP

OTHER RELATED PAPERS

AIHARA	88C	PR D38 1	+Alston-Garnjost+	(TPC-2γ Collab.) JPC
ASTON	85	PR D32 2255	+Carnegie, Dunwoodie+	(SLAC, CARL, CNRC)
ATKINSON	84E	PL 138B 459	+	(BONN, CERN, GLAS, LANC, MCHS, CURIN+)
GAVILLET	82	ZPHY C16 119	+Armenteros+	(CERN, CDEF, PADO, ROMA)
D'ANDLAU	65	PL 17 347	+Barlow, Adamson+	(CDEF, CERN, IRAD, LIVP)
MILLER	65	PRL 14 1074	+Chung, Dahl, Hess, Hardy, Kirz+	(LRL, UCB)