

**$f_0(1370)$**

$$I^G(J^{PC}) = 0^+(0^{++})$$

See also the mini-reviews on scalar mesons under  $f_0(600)$  and on non- $q\bar{q}$  candidates. (See the index for the page number.)

### $f_0(1370)$ T-MATRIX POLE POSITION

Note that  $\Gamma \approx 2 \operatorname{Im}(\sqrt{s_{\text{pole}}})$ .

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>(1200–1500)–<math>i</math>(150–250) OUR ESTIMATE</b>			
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
$(1373 \pm 15) - i(137 \pm 10)$	<sup>12</sup> BARGIOTTI	03 OBLX	$\bar{p}p$
$(1302 \pm 17) - i(166 \pm 18)$	<sup>1</sup> BARBERIS	00C	450 $pp \rightarrow p_f 4\pi p_S$
$(1312 \pm 25 \pm 10) - i(109 \pm 22 \pm 15)$	BARBERIS	99D OMEG	450 $pp \rightarrow K^+ K^-, \pi^+ \pi^-$
$(1406 \pm 19) - i(80 \pm 6)$	<sup>2</sup> KAMINSKI	99 RVUE	$\pi\pi \rightarrow \pi\pi, K\bar{K}, \sigma\sigma$
$(1300 \pm 20) - i(120 \pm 20)$	ANISOVICH	98B RVUE	Compilation
$(1290 \pm 15) - i(145 \pm 15)$	BARBERIS	97B OMEG	450 $pp \rightarrow pp2(\pi^+ \pi^-)$
$(1548 \pm 40) - i(560 \pm 40)$	BERTIN	97C OBLX	0.0 $\bar{p}p \rightarrow \pi^+ \pi^- \pi^0$
$(1380 \pm 40) - i(180 \pm 25)$	ABELE	96B CBAR	0.0 $\bar{p}p \rightarrow \pi^0 K_L^0 K_L^0$
$(1300 \pm 15) - i(115 \pm 8)$	BUGG	96 RVUE	
$(1330 \pm 50) - i(150 \pm 40)$	<sup>3</sup> AMSLER	95B CBAR	$\bar{p}p \rightarrow 3\pi^0$
$(1360 \pm 35) - i(150-300)$	<sup>3</sup> AMSLER	95C CBAR	$\bar{p}p \rightarrow \pi^0 \eta \eta$
$(1390 \pm 30) - i(190 \pm 40)$	<sup>4</sup> AMSLER	95D CBAR	$\bar{p}p \rightarrow 3\pi^0, \pi^0 \eta \eta, \pi^0 \pi^0 \eta$
1346 – $i$ 249	<sup>5,6</sup> JANSSEN	95 RVUE	$\pi\pi \rightarrow \pi\pi, K\bar{K}$
1214 – $i$ 168	<sup>6,7</sup> TORNQVIST	95 RVUE	$\pi\pi \rightarrow \pi\pi, K\bar{K}, K\pi, \eta\pi$
1364 – $i$ 139	AMSLER	94D CBAR	$\bar{p}p \rightarrow \pi^0 \pi^0 \eta$
$(1365^{+20}_{-55}) - i(134 \pm 35)$	ANISOVICH	94 CBAR	$\bar{p}p \rightarrow 3\pi^0, \pi^0 \eta \eta$
$(1340 \pm 40) - i(127^{+30}_{-20})$	<sup>8</sup> BUGG	94 RVUE	$\bar{p}p \rightarrow 3\pi^0, \eta \eta \pi^0, \eta \pi^0 \pi^0$
$(1430 \pm 5) - i(73 \pm 13)$	<sup>9</sup> KAMINSKI	94 RVUE	$\pi\pi \rightarrow \pi\pi, K\bar{K}$
1515 – $i$ 214	<sup>6,10</sup> ZOU	93 RVUE	$\pi\pi \rightarrow \pi\pi, K\bar{K}$
1420 – $i$ 220	<sup>11</sup> AU	87 RVUE	$\pi\pi \rightarrow \pi\pi, K\bar{K}$

<sup>1</sup> Average between  $\pi^+ \pi^- 2\pi^0$  and  $2(\pi^+ \pi^-)$ .

<sup>2</sup> T-matrix pole on sheet – – –.

<sup>3</sup> Supersedes ANISOVICH 94.

<sup>4</sup> Coupled-channel analysis of  $\bar{p}p \rightarrow 3\pi^0, \pi^0 \eta \eta$ , and  $\pi^0 \pi^0 \eta$  on sheet IV. Demonstrates explicitly that  $f_0(600)$  and  $f_0(1370)$  are two different poles.

<sup>5</sup> Analysis of data from FALVARD 88.

<sup>6</sup> The pole is on Sheet III. Demonstrates explicitly that  $f_0(600)$  and  $f_0(1370)$  are two different poles.

<sup>7</sup> Uses data from BEIER 72B, OCHS 73, HYAMS 73, GRAYER 74, ROSSELET 77, CA-SON 83, ASTON 88, and ARMSTRONG 91B. Coupled channel analysis with flavor symmetry and all light two-pseudoscalars systems.

<sup>8</sup> Reanalysis of ANISOVICH 94 data.

<sup>9</sup>T-matrix pole on sheet III.

<sup>10</sup>Analysis of data from OCHS 73, GRAYER 74, and ROSSELET 77.

<sup>11</sup>Analysis of data from OCHS 73, GRAYER 74, BECKER 79, and CASON 83.

<sup>12</sup>Coupled channel analysis of  $\pi^+\pi^-\pi^0$ ,  $K^+K^-\pi^0$ , and  $K^\pm K_S^0 \pi^\mp$ .

## $f_0(1370)$ BREIT-WIGNER MASS OR K-MATRIX POLE PARAMETER

VALUE (MeV)  
**1200 to 1500 OUR ESTIMATE**

DOCUMENT ID

### $\pi\pi$ MODE

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
1350 ± 50		ABLIKIM 05	BES2	$J/\psi \rightarrow \phi \pi^+ \pi^-$
1434 ± 18 ± 9	848	AITALA 01A	E791	$D_S^+ \rightarrow \pi^- \pi^+ \pi^+$
1308 ± 10		BARBERIS 99B	OMEG 450	$pp \rightarrow p_S p_f \pi^+ \pi^-$
1315 ± 50		BELLAZZINI 99	GAM4 450	$pp \rightarrow pp \pi^0 \pi^0$
1315 ± 30		ALDE 98	GAM4 100	$\pi^- p \rightarrow \pi^0 \pi^0 n$
1280 ± 55		BERTIN 98	OBLX	$0.05-0.405 \bar{n} p \rightarrow \pi^+ \pi^+ \pi^-$
1186	13,14	TORNQVIST 95	RVUE	$\pi\pi \rightarrow \pi\pi, K\bar{K}, K\pi, \eta\pi$
1472 ± 12		ARMSTRONG 91	OMEG 300	$pp \rightarrow pp\pi\pi, ppK\bar{K}$
1275 ± 20		BREAKSTONE 90	SFM 62	$pp \rightarrow pp\pi^+ \pi^-$
1420 ± 20		AKESSON 86	SPEC 63	$pp \rightarrow pp\pi^+ \pi^-$
1256		FROGGATT 77	RVUE	$\pi^+ \pi^-$ channel

<sup>13</sup>Uses data from BEIER 72B, OCHS 73, HYAMS 73, GRAYER 74, ROSSELET 77, CASON 83, ASTON 88, and ARMSTRONG 91B. Coupled channel analysis with flavor symmetry and all light two-pseudoscalars systems.

<sup>14</sup>Also observed by ASNER 00 in  $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \nu_\tau$  decays

### $K\bar{K}$ MODE

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
1391 ± 10	TIKHOMIROV 03	SPEC 40.0	$\pi^- C \rightarrow K_S^0 K_S^0 K_L^0 X$
1440 ± 50	BOLONKIN 88	SPEC 40	$\pi^- p \rightarrow K_S^0 K_S^0 n$
1463 ± 9	ETKIN 82B	MPS 23	$\pi^- p \rightarrow n 2K_S^0$
1425 ± 15	WICKLUND 80	SPEC 6	$\pi N \rightarrow K^+ K^- N$
~ 1300	POLYCHRO... 79	STRC 7	$\pi^- p \rightarrow n 2K_S^0$

### $4\pi$ MODE $2(\pi\pi)_S + \rho\rho$

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
1395 ± 40	ABELE 01	CBAR 0.0	$\bar{p} d \rightarrow \pi^- 4\pi^0 p$
1374 ± 38	AMSLER 94	CBAR 0.0	$\bar{p} p \rightarrow \pi^+ \pi^- 3\pi^0$
1345 ± 12	ADAMO 93	OBLX	$\bar{n} p \rightarrow 3\pi^+ 2\pi^-$
1386 ± 30	GASPERO 93	DBC 0.0	$\bar{p} n \rightarrow 2\pi^+ 3\pi^-$

## $\eta\eta$ MODE

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •			
1430	AMSLER	92 CBAR	$0.0 \bar{p}p \rightarrow \pi^0 \eta \eta$
$1220 \pm 40$	ALDE	86D GAM4	$100 \pi^- p \rightarrow n 2\eta$

## COUPLED CHANNEL MODE

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •		
$1306 \pm 20$	<sup>15</sup> ANISOVICH	03 RVUE
<sup>15</sup> K-matrix pole from combined analysis of $\pi^- p \rightarrow \pi^0 \pi^0 n$ , $\pi^- p \rightarrow K \bar{K} n$ , $\pi^+ \pi^- \rightarrow \pi^+ \pi^-$ , $\bar{p}p \rightarrow \pi^0 \pi^0 \pi^0$ , $\pi^0 \eta \eta$ , $\pi^0 \pi^0 \eta$ , $\pi^+ \pi^- \pi^0$ , $K^+ K^- \pi^0$ , $K_S^0 K_S^0 \pi^0$ , $K^+ K_S^0 \pi^-$ at rest, $\bar{p}n \rightarrow \pi^- \pi^- \pi^+$ , $K_S^0 K^- \pi^0$ , $K_S^0 K_S^0 \pi^-$ at rest.		

## $f_0(1370)$ BREIT-WIGNER WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>
<b>200 to 500 OUR ESTIMATE</b>	

## $\pi\pi$ MODE

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$265 \pm 40$		ABLIKIM	05 BES2	$J/\psi \rightarrow \phi \pi^+ \pi^-$
$173 \pm 32 \pm 6$	848	AITALA	01A E791	$D_S^+ \rightarrow \pi^- \pi^+ \pi^+$
$222 \pm 20$		BARBERIS	99B OMEG	$450 pp \rightarrow p_S p_f \pi^+ \pi^-$
$255 \pm 60$		BELLAZZINI	99 GAM4	$450 pp \rightarrow pp \pi^0 \pi^0$
$190 \pm 50$		ALDE	98 GAM4	$100 \pi^- p \rightarrow \pi^0 \pi^0 n$
$323 \pm 13$		BERTIN	98 OBLX	$0.05-0.405 \bar{p}p \rightarrow \pi^+ \pi^+ \pi^-$
350	<sup>16,17</sup>	TORNQVIST	95 RVUE	$\pi\pi \rightarrow \pi\pi, K\bar{K}, K\pi, \eta\pi$
$195 \pm 33$		ARMSTRONG	91 OMEG	$300 pp \rightarrow pp\pi\pi, ppK\bar{K}$
$285 \pm 60$		BREAKSTONE	90 SFM	$62 pp \rightarrow pp\pi^+ \pi^-$
$460 \pm 50$		AKESSON	86 SPEC	$63 pp \rightarrow pp\pi^+ \pi^-$
$\sim 400$	<sup>18</sup>	FROGGATT	77 RVUE	$\pi^+ \pi^-$ channel

<sup>16</sup> Uses data from BEIER 72B, OCHS 73, HYAMS 73, GRAYER 74, ROSSELET 77, CA-SON 83, ASTON 88, and ARMSTRONG 91B. Coupled channel analysis with flavor symmetry and all light two-pseudoscalars systems.

<sup>17</sup> Also observed by ASNER 00 in  $\tau^- \rightarrow \pi^- \pi^0 \pi^0 \nu_\tau$  decays

<sup>18</sup> Width defined as distance between 45 and 135° phase shift.

## $K\bar{K}$ MODE

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
$55 \pm 26$	TIKHOMIROV 03	SPEC	$40.0 \pi^- C \rightarrow K_S^0 K_S^0 K_L^0 X$
$250 \pm 80$	BOLONKIN 88	SPEC	$40 \pi^- p \rightarrow K_S^0 K_S^0 n$
$118^{+138}_{-16}$	ETKIN 82B	MPS	$23 \pi^- p \rightarrow n 2 K_S^0$
$160 \pm 30$	WICKLUND 80	SPEC	$6 \pi N \rightarrow K^+ K^- N$
$\sim 150$	POLYCHRO... 79	STRC	$7 \pi^- p \rightarrow n 2 K_S^0$

## $4\pi$ MODE $2(\pi\pi)_S + \rho\rho$

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
$275 \pm 55$	ABELE 01	CBAR	$0.0 \bar{p} d \rightarrow \pi^- 4\pi^0 p$
$375 \pm 61$	AMSLER 94	CBAR	$0.0 \bar{p} p \rightarrow \pi^+ \pi^- 3\pi^0$
$398 \pm 26$	ADAMO 93	OBLX	$\bar{p} p \rightarrow 3\pi^+ 2\pi^-$
$310 \pm 50$	GASPERO 93	DBC	$0.0 \bar{p} n \rightarrow 2\pi^+ 3\pi^-$

## $\eta\eta$ MODE

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
250	AMSLER 92	CBAR	$0.0 \bar{p} p \rightarrow \pi^0 \eta\eta$
$320 \pm 40$	ALDE 86D	GAM4	$100 \pi^- p \rightarrow n 2\eta$

## COUPLED CHANNEL MODE

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
$147^{+30}_{-50}$	<sup>19</sup> ANISOVICH 03	RVUE	
<sup>19</sup> K-matrix pole from combined analysis of $\pi^- p \rightarrow \pi^0 \pi^0 n$ , $\pi^- p \rightarrow K\bar{K}n$ , $\pi^+ \pi^- \rightarrow \pi^+ \pi^-$ , $\bar{p} p \rightarrow \pi^0 \pi^0 \pi^0$ , $\pi^0 \eta\eta$ , $\pi^0 \pi^0 \eta$ , $\pi^+ \pi^- \pi^0$ , $K^+ K^- \pi^0$ , $K_S^0 K_S^0 \pi^0$ , $K^+ K_S^0 \pi^-$ at rest, $\bar{p} n \rightarrow \pi^- \pi^- \pi^+$ , $K_S^0 K^- \pi^0$ , $K_S^0 K_S^0 \pi^-$ at rest.			

## $f_0(1370)$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $\pi\pi$	seen
$\Gamma_2$ $4\pi$	seen
$\Gamma_3$ $4\pi^0$	seen
$\Gamma_4$ $2\pi^+ 2\pi^-$	seen
$\Gamma_5$ $\pi^+ \pi^- 2\pi^0$	seen
$\Gamma_6$ $\rho\rho$	dominant
$\Gamma_7$ $2(\pi\pi)_S$ -wave	seen

$\Gamma_8$	$\pi(1300)\pi$	seen
$\Gamma_9$	$a_1(1260)\pi$	seen
$\Gamma_{10}$	$\eta\eta$	seen
$\Gamma_{11}$	$K\bar{K}$	seen
$\Gamma_{12}$	$\gamma\gamma$	seen
$\Gamma_{13}$	$e^+e^-$	not seen

### $f_0(1370)$ PARTIAL WIDTHS

$\Gamma(\gamma\gamma)$   $\Gamma_{12}$   
 See  $\gamma\gamma$  widths under  $f_0(600)$  and MORGAN 90.

$\Gamma(e^+e^-)$   $\Gamma_{13}$

VALUE (eV)	CL%	DOCUMENT ID	TECN	COMMENT
<20	90	VOROBYEV 88	ND	$e^+e^- \rightarrow \pi^0\pi^0$

### $f_0(1370)$ BRANCHING RATIOS

$\Gamma(\pi\pi)/\Gamma_{\text{total}}$   $\Gamma_1/\Gamma$

VALUE	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.26 \pm 0.09$	BUGG 96	RVUE	
<0.15	<sup>20</sup> AMSLER 94	CBAR	$\bar{p}p \rightarrow \pi^+\pi^-3\pi^0$
<0.20	GASPERO 93	DBC	$0.0 \bar{p}n \rightarrow \text{hadrons}$
<sup>20</sup> Using AMSLER 95B ( $3\pi^0$ ).			

$\Gamma(4\pi)/\Gamma_{\text{total}}$   $\Gamma_2/\Gamma = (\Gamma_3 + \Gamma_4 + \Gamma_5)/\Gamma$

VALUE	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.80 \pm 0.04$	GASPERO 93	DBC	$0.0 \bar{p}n \rightarrow \text{hadrons}$

$\Gamma(4\pi^0)/\Gamma_{\text{total}}$   $\Gamma_3/\Gamma$

VALUE	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			
seen	ABELE 96	CBAR	$0.0 \bar{p}p \rightarrow 5\pi^0$

$\Gamma(2\pi^+2\pi^-)/\Gamma(4\pi)$   $\Gamma_4/\Gamma_2 = \Gamma_4/(\Gamma_3 + \Gamma_4 + \Gamma_5)$

VALUE	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.420 \pm 0.014$	<sup>21</sup> GASPERO 93	DBC	$0.0 \bar{p}n \rightarrow 2\pi^+3\pi^-$
<sup>21</sup> Model-dependent evaluation.			

$\Gamma(\pi^+\pi^-2\pi^0)/\Gamma(4\pi)$   $\Gamma_5/\Gamma_2 = \Gamma_5/(\Gamma_3 + \Gamma_4 + \Gamma_5)$

VALUE	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.512 \pm 0.019$	<sup>22</sup> GASPERO 93	DBC	$0.0 \bar{p}n \rightarrow \text{hadrons}$
<sup>22</sup> Model-dependent evaluation.			

**$\Gamma(\rho\rho)/\Gamma(2(\pi\pi)_{S\text{-wave}})$**

**$\Gamma_6/\Gamma_7$**

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •			
large	BARBERIS	00C	450 $p\rho \rightarrow \rho_f 4\pi p_S$
$1.6 \pm 0.2$	AMSLER	94 CBAR	$\bar{p}p \rightarrow \pi^+ \pi^- 3\pi^0$
$0.58 \pm 0.16$	GASPERO	93 DBC	$0.0 \bar{p}n \rightarrow 2\pi^+ 3\pi^-$

**$\Gamma(2(\pi\pi)_{S\text{-wave}})/\Gamma(4\pi)$**

**$\Gamma_7/\Gamma_2$**

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$5.6 \pm 2.6$	<sup>23</sup> ABELE	01 CBAR	$0.0 \bar{p}d \rightarrow \pi^- 4\pi^0 p$

**$\Gamma(2(\pi\pi)_{S\text{-wave}})/\Gamma(4\pi)$**

**$\Gamma_7/\Gamma_2$**

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.51 \pm 0.09$	ABELE	01B CBAR	$0.0 \bar{p}n \rightarrow 5\pi$

**$\Gamma(\rho\rho)/\Gamma(4\pi)$**

**$\Gamma_6/\Gamma_2$**

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.26 \pm 0.07$	ABELE	01B CBAR	$0.0 \bar{p}n \rightarrow 5\pi$

**$\Gamma(\pi(1300)\pi)/\Gamma(4\pi)$**

**$\Gamma_8/\Gamma_2$**

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.17 \pm 0.06$	ABELE	01B CBAR	$0.0 \bar{p}n \rightarrow 5\pi$

**$\Gamma(a_1(1260)\pi)/\Gamma(4\pi)$**

**$\Gamma_9/\Gamma_2$**

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.06 \pm 0.02$	ABELE	01B CBAR	$0.0 \bar{p}n \rightarrow 5\pi$

**$\Gamma(K\bar{K})/\Gamma_{\text{total}}$**

**$\Gamma_{11}/\Gamma$**

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.35 \pm 0.13$	BUGG	96 RVUE	

**$\Gamma(K\bar{K})/\Gamma(\pi\pi)$**

**$\Gamma_{11}/\Gamma_1$**

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$0.08 \pm 0.08$	ABLIKIM	05 BES2	$J/\psi \rightarrow \phi \pi^+ \pi^-$ , $\phi K^+ K^-$
$0.91 \pm 0.20$	<sup>24</sup> BARGIOTTI	03 OBLX	$\bar{p}p$
$0.12 \pm 0.06$	<sup>25</sup> ANISOVICH	02D SPEC	Combined fit
$0.46 \pm 0.15 \pm 0.11$	BARBERIS	99D OMEG	$450 p\rho \rightarrow K^+ K^-$ , $\pi^+ \pi^-$

$\Gamma(\eta\eta)/\Gamma(4\pi)$  $\Gamma_{10}/\Gamma_2 = \Gamma_{10}/(\Gamma_3+\Gamma_4+\Gamma_5)$ 

VALUE	DOCUMENT ID	TECN	COMMENT
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• • • We do not use the following data for averages, fits, limits, etc. • • •

$(28 \pm 11) \times 10^{-3}$	<sup>25</sup> ANISOVICH	02D SPEC	Combined fit
$(4.7 \pm 2.0) \times 10^{-3}$	BARBERIS	00E	450 $p\bar{p} \rightarrow p_f \eta \eta p_S$

<sup>23</sup> From the combined data of ABELE 96 and ABELE 96C.<sup>24</sup> Coupled channel analysis of  $\pi^+\pi^-\pi^0$ ,  $K^+K^-\pi^0$ , and  $K^\pm K_S^0 \pi^\mp$ .<sup>25</sup> From a combined K-matrix analysis of Crystal Barrel ( $0. p\bar{p} \rightarrow \pi^0\pi^0\pi^0$ ,  $\pi^0\eta\eta$ ,  $\pi^0\pi^0\eta$ ), GAMS ( $\pi p \rightarrow \pi^0\pi^0 n$ ,  $\eta\eta n$ ,  $\eta\eta' n$ ), and BNL ( $\pi p \rightarrow K\bar{K}n$ ) data. **$f_0(1370)$  REFERENCES**

ABLIKIM	05	PL B607 243	M. Ablikim <i>et al.</i>	(BES Collab.)
ANISOVICH	03	EPJ A16 229	V.V. Anisovich <i>et al.</i>	
BARGIOTTI	03	EPJ C26 371	M. Bargiotti <i>et al.</i>	(OBELIX Collab.)
TIKHOMIROV	03	PAN 66 828	G.D. Tikhomirov <i>et al.</i>	
ANISOVICH	02D	PAN 65 1545 Translated from YAF 66 860.	V.V. Anisovich <i>et al.</i>	
ABELE	01	EPJ C19 667	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)
ABELE	01B	EPJ C21 261	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)
AITALA	01A	PRL 86 765	E.M. Aitala <i>et al.</i>	(FNAL E791 Collab.)
ASNER	00	PR D61 012002	D.M. Asner <i>et al.</i>	(CLEO Collab.)
BARBERIS	00C	PL B471 440	D. Barberis <i>et al.</i>	(WA 102 Collab.)
BARBERIS	00E	PL B479 59	D. Barberis <i>et al.</i>	(WA 102 Collab.)
BARBERIS	99B	PL B453 316	D. Barberis <i>et al.</i>	(Omega Expt.)
BARBERIS	99D	PL B462 462	D. Barberis <i>et al.</i>	(Omega Expt.)
BELLAZZINI	99	PL B467 296	R. Bellazzini <i>et al.</i>	
KAMINSKI	99	EPJ C9 141	R. Kaminski, L. Lesniak, B. Loiseau	(CRAC, PARIN)
ALDE	98	EPJ A3 361	D. Alde <i>et al.</i>	(GAM4 Collab.)
Also	99	PAN 62 405 Translated from YAF 62 446.	D. Alde <i>et al.</i>	(GAMS Collab.)
ANISOVICH	98B	UFN 41 419	V.V. Anisovich <i>et al.</i>	
BERTIN	98	PR D57 55	A. Bertin <i>et al.</i>	(OBELIX Collab.)
BARBERIS	97B	PL B413 217	D. Barberis <i>et al.</i>	(WA 102 Collab.)
BERTIN	97C	PL B408 476	A. Bertin <i>et al.</i>	(OBELIX Collab.)
ABELE	96	PL B380 453	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)
ABELE	96B	PL B385 425	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)
ABELE	96C	NP A609 562	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)
BUGG	96	NP B471 59	D.V. Bugg, A.V. Sarantsev, B.S. Zou	(LOQM, PNPI)
AMSLER	95B	PL B342 433	C. Amsler <i>et al.</i>	(Crystal Barrel Collab.)
AMSLER	95C	PL B353 571	C. Amsler <i>et al.</i>	(Crystal Barrel Collab.)
AMSLER	95D	PL B355 425	C. Amsler <i>et al.</i>	(Crystal Barrel Collab.)
JANSSEN	95	PR D52 2690	G. Janssen <i>et al.</i>	(STON, ADLD, JULI)
TORNQVIST	95	ZPHY C68 647	N.A. Tornqvist	(HELS)
AMSLER	94	PL B322 431	C. Amsler <i>et al.</i>	(Crystal Barrel Collab.) JPC
AMSLER	94D	PL B333 277	C. Amsler <i>et al.</i>	(Crystal Barrel Collab.)
ANISOVICH	94	PL B323 233	V.V. Anisovich <i>et al.</i>	(Crystal Barrel Collab.) JPC
BUGG	94	PR D50 4412	D.V. Bugg <i>et al.</i>	(LOQM)
KAMINSKI	94	PR D50 3145	R. Kaminski, L. Lesniak, J.P. Maillet	(CRAC+)
ADAMO	93	NP A558 13C	A. Adamo <i>et al.</i>	(OBELIX Collab.) JPC
GASPERO	93	NP A562 407	M. Gaspero	(ROMA) JPC
ZOU	93	PR D48 R3948	B.S. Zou, D.V. Bugg	(LOQM)
AMSLER	92	PL B291 347	C. Amsler <i>et al.</i>	(Crystal Barrel Collab.)
ARMSTRONG	91	ZPHY C51 351	T.A. Armstrong <i>et al.</i>	(ATHU, BARI, BIRM+)
ARMSTRONG	91B	ZPHY C52 389	T.A. Armstrong <i>et al.</i>	(ATHU, BARI, BIRM+)
BREAKSTONE	90	ZPHY C48 569	A.M. Breakstone <i>et al.</i>	(ISU, BGNA, CERN+)
MORGAN	90	ZPHY C48 623	D. Morgan, M.R. Pennington	(RAL, DURH)
ASTON	88	NP B296 493	D. Aston <i>et al.</i>	(SLAC, NAGO, CINC, INUS)
BOLONKIN	88	NP B309 426	B.V. Bolonkin <i>et al.</i>	(ITEP, SERP)
FALVARD	88	PR D38 2706	A. Falvard <i>et al.</i>	(CLER, FRAS, LALO+)
VOROBYEV	88	SJNP 48 273 Translated from YAF 48 436.	P.V. Vorobiev <i>et al.</i>	(NOVO)

AU	87	PR D35 1633	K.L. Au, D. Morgan, M.R. Pennington	(DURH, RAL)
AKESSON	86	NP B264 154	T. Akesson <i>et al.</i>	(Axial Field Spec. Collab.)
ALDE	86D	NP B269 485	D.M. Alde <i>et al.</i>	(BELG, LAPP, SERP, CERN+)
CASON	83	PR D28 1586	N.M. Cason <i>et al.</i>	(NDAM, ANL)
ETKIN	82B	PR D25 1786	A. Etkin <i>et al.</i>	(BNL, CUNY, TUFTS, VAND)
WICKLUND	80	PRL 45 1469	A.B. Wicklund <i>et al.</i>	(ANL)
BECKER	79	NP B151 46	H. Becker <i>et al.</i>	(MPIM, CERN, ZEEM, CRAC)
POLYCHRO...	79	PR D19 1317	V.A. Polychronakos <i>et al.</i>	(NDAM, ANL)
FROGGATT	77	NP B129 89	C.D. Froggatt, J.L. Petersen	(GLAS, NORD)
ROSSELET	77	PR D15 574	L. Rosselet <i>et al.</i>	(GEVA, SACL)
GRAYER	74	NP B75 189	G. Grayer <i>et al.</i>	(CERN, MPIM)
HYAMS	73	NP B64 134	B.D. Hyams <i>et al.</i>	(CERN, MPIM)
OCHS	73	Thesis	W. Ochs	(MPIM, MUNI)
BEIER	72B	PRL 29 511	E.W. Beier <i>et al.</i>	(PENN)

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		Translated from YAF 66 772.		
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		Translated from YAF 66 960.		
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