

$f_0(1710)$

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

See our mini-review in the 2004 edition of this *Review*, Physics Letters **B592** 1 (2004). See also the mini-review on scalar mesons under $f_0(500)$ (see the index for the page number).

$f_0(1710)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
1720 ± 6	OUR AVERAGE	Error includes scale factor of 1.6. See the ideogram below.		
1701 ± 5	$\begin{smallmatrix} +9 \\ -2 \end{smallmatrix}$	4k	1	CHEKANOV 08 ZEUS $e p \rightarrow K_S^0 K_S^0 X$
1765 $\begin{smallmatrix} +4 \\ -3 \end{smallmatrix}$	±13			ABLIKIM 06V BES2 $e^+ e^- \rightarrow J/\psi \rightarrow \gamma \pi^+ \pi^-$
1760 ± 15	$\begin{smallmatrix} +15 \\ -10 \end{smallmatrix}$		2	ABLIKIM 05Q BES2 $\psi(2S) \rightarrow \gamma \pi^+ \pi^- K^+ K^-$
1738 ± 30				ABLIKIM 04E BES2 $J/\psi \rightarrow \omega K^+ K^-$
1740 ± 4	$\begin{smallmatrix} +10 \\ -25 \end{smallmatrix}$		3	BAI 03G BES $J/\psi \rightarrow \gamma K \bar{K}$
1740 $\begin{smallmatrix} +30 \\ -25 \end{smallmatrix}$			3	BAI 00A BES $J/\psi \rightarrow \gamma(\pi^+ \pi^- \pi^+ \pi^-)$
1698 ± 18			4	BARBERIS 00E 450 $pp \rightarrow p_f \eta \eta p_s$
1710 ± 12	±11		5	BARBERIS 99D OMEG 450 $pp \rightarrow K^+ K^-, \pi^+ \pi^-$
1710 ± 25			6	FRENCH 99 300 $pp \rightarrow p_f(K^+ K^-) p_s$
1707 ± 10			7	AUGUSTIN 88 DM2 $J/\psi \rightarrow \gamma K^+ K^-, K_S^0 K_S^0$
1698 ± 15			7	AUGUSTIN 87 DM2 $J/\psi \rightarrow \gamma \pi^+ \pi^-$
1720 ± 10	±10		8	BALTRUSAIT..87 MRK3 $J/\psi \rightarrow \gamma K^+ K^-$
1742 ± 15			7	WILLIAMS 84 MPSF 200 $\pi^- N \rightarrow 2K_S^0 X$
1670 ± 50				BLOOM 83 CBAL $J/\psi \rightarrow \gamma 2\eta$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
1750 ± 13				AMSLER 06 CBAR 1.64 $\bar{p} p \rightarrow K^+ K^- \pi^0$
1747 ± 5	80k	9,10		UMAN 06 E835 5.2 $\bar{p} p \rightarrow \eta \eta \pi^0$
1776 ± 15				VLADIMIRSK...06 SPEC 40 $\pi^- p \rightarrow K_S^0 K_S^0 n$
1790 $\begin{smallmatrix} +40 \\ -30 \end{smallmatrix}$			2	ABLIKIM 05 BES2 $J/\psi \rightarrow \phi \pi^+ \pi^-$
1670 ± 20			9	BINON 05 GAMS 33 $\pi^- p \rightarrow \eta \eta n$
1726 ± 7	74		10	CHEKANOV 04 ZEUS $e p \rightarrow K_S^0 K_S^0 X$
1732 ± 15			11	ANISOVICH 03 RVUE
1682 ± 16				TIKHOMIROV 03 SPEC 40.0 $\pi^- C \rightarrow K_S^0 K_S^0 K_L^0 X$
1670 ± 26	3651	3,12		NICHITIU 02 OBLX
1770 ± 12		13,14		ANISOVICH 99B SPEC 0.6–1.2 $p \bar{p} \rightarrow \eta \eta \pi^0$
1730 ± 15		3		BARBERIS 99 OMEG 450 $pp \rightarrow p_s p_f K^+ K^-$
1750 ± 20		3		BARBERIS 99B OMEG 450 $pp \rightarrow p_s p_f \pi^+ \pi^-$
1750 ± 30		15		ANISOVICH 98B RVUE Compilation
1720 ± 39				BAI 98H BES $J/\psi \rightarrow \gamma \pi^0 \pi^0$
1775 ± 1.5	57	16		BARKOV 98 $\pi^- p \rightarrow K_S^0 K_S^0 n$
1690 ± 11		17		ABREU 96C DLPH $Z^0 \rightarrow K^+ K^- + X$
1696 ± 5	$\begin{smallmatrix} +9 \\ -34 \end{smallmatrix}$		8	BAI 96C BES $J/\psi \rightarrow \gamma K^+ K^-$

1781 ± 8	⁺¹⁰ ₋₃₁	3 BAI	96C BES	$J/\psi \rightarrow \gamma K^+ K^-$
1768 ± 14		BALOSHIN	95 SPEC	$40 \pi^- C \rightarrow K_S^0 K_S^0 X$
1750 ± 15		18 BUGG	95 MRK3	$J/\psi \rightarrow \gamma \pi^+ \pi^- \pi^+ \pi^-$
1620 ± 16		8 BUGG	95 MRK3	$J/\psi \rightarrow \gamma \pi^+ \pi^- \pi^+ \pi^-$
1748 ± 10		7 ARMSTRONG	93C E760	$\bar{p} p \rightarrow \pi^0 \eta \eta \rightarrow 6\gamma$
~ 1750		BREAKSTONE	93 SFM	$p p \rightarrow p p \pi^+ \pi^- \pi^+ \pi^-$
1744 ± 15		19 ALDE	92D GAM2	$38 \pi^- p \rightarrow \eta \eta n$
1713 ± 10		20 ARMSTRONG	89D OMEG	$300 p p \rightarrow p p K^+ K^-$
1706 ± 10		20 ARMSTRONG	89D OMEG	$300 p p \rightarrow p p K_S^0 K_S^0$
1700 ± 15		8 BOLONKIN	88 SPEC	$40 \pi^- p \rightarrow K_S^0 K_S^0 n$
1720 ± 60		3 BOLONKIN	88 SPEC	$40 \pi^- p \rightarrow K_S^0 K_S^0 n$
1638 ± 10		21 FALVARD	88 DM2	$J/\psi \rightarrow \phi K^+ K^-, K_S^0 K_S^0$
1690 ± 4		22 FALVARD	88 DM2	$J/\psi \rightarrow \phi K^+ K^-, K_S^0 K_S^0$
1755 ± 8		23 ALDE	86C GAM2	$38 \pi^- p \rightarrow n 2\eta$
1730 ⁺ ₋₁₀	²	24 LONGACRE	86 RVUE	$22 \pi^- p \rightarrow n 2K_S^0$
1650 ± 50		BURKE	82 MRK2	$J/\psi \rightarrow \gamma 2\rho$
1640 ± 50		25,26 EDWARDS	82D CBAL	$J/\psi \rightarrow \gamma 2\eta$
1730 ± 10	± 20	27 ETKIN	82C MPS	$23 \pi^- p \rightarrow n 2K_S^0$

¹ In the SU(3) based model with a specific interference pattern of the $f_2(1270)$, $a_2^0(1320)$, and $f_2'(1525)$ mesons incoherently added to the $f_0(1710)$ and non-resonant background.

² This state may be different from $f_0(1710)$, see CLOSE 05.

³ $J^P = 0^+$.

⁴ T-matrix pole.

⁵ Supersedes BARBERIS 99 and BARBERIS 99B.

⁶ $J^P = 0^+$, superseded by ARMSTRONG 89D.

⁷ No J^{PC} determination.

⁸ $J^P = 2^+$.

⁹ Breit-Wigner mass.

¹⁰ Systematic errors not estimated.

¹¹ K-matrix pole, assuming $J^P = 0^+$, 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.

¹² Decaying to $f_0(1370) \pi \pi$.

¹³ $J^P = 0^+$.

¹⁴ Not seen by AMSLER 02.

¹⁵ T-matrix pole, assuming $J^P = 0^+$

¹⁶ No J^{PC} determination.

¹⁷ No J^{PC} determination, width not determined.

¹⁸ From a fit to the 0^+ partial wave.

¹⁹ ALDE 92D combines all the GAMS-2000 data.

²⁰ $J^P = 2^+$, superseded by FRENCH 99.

²¹ From an analysis ignoring interference with $f_2'(1525)$.

²² From an analysis including interference with $f_2'(1525)$.

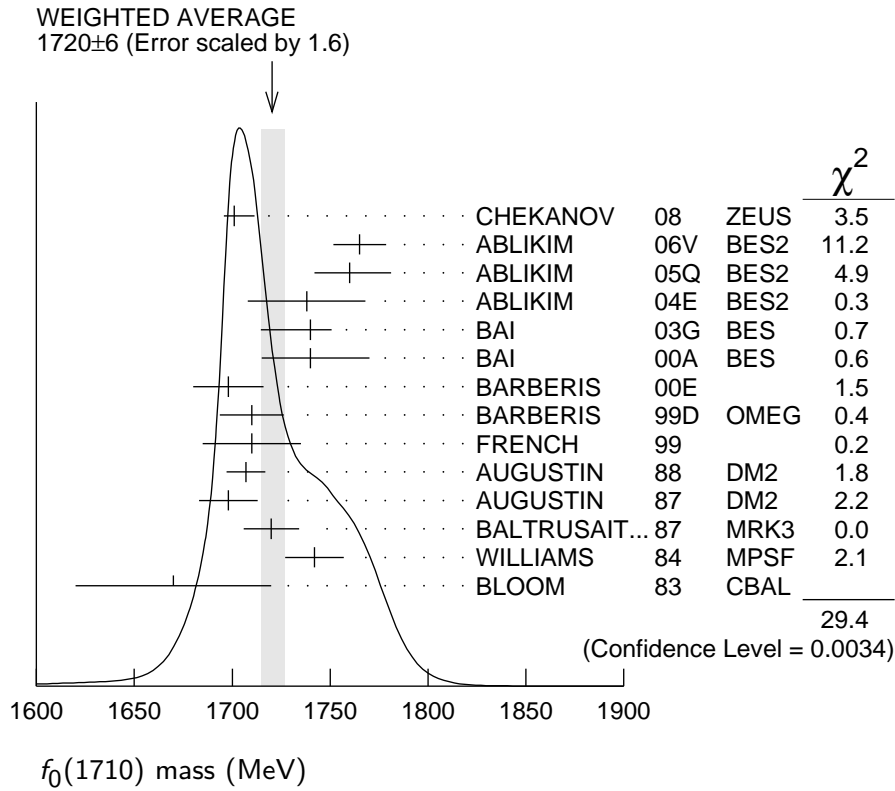
²³ Superseded by ALDE 92D.

²⁴ Uses MRK3 data. From a partial-wave analysis of data using a K-matrix formalism with 5 poles, but assuming spin 2. Fit with constrained inelasticity.

²⁵ $J^P = 2^+$ preferred.

²⁶ From fit neglecting nearby $f_2'(1525)$. Replaced by BLOOM 83.

27 Superseded by LONGACRE 86.



$f_0(1710)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
135 ± 8	OUR AVERAGE	Error includes scale factor of 1.1.		
100 ± 24	$\begin{smallmatrix} +7 \\ -22 \end{smallmatrix}$	4k 28 CHEKANOV	08 ZEUS	$e p \rightarrow K_S^0 K_S^0 X$
145 ± 8	±69	ABLIKIM	06V BES2	$e^+ e^- \rightarrow J/\psi \rightarrow \gamma \pi^+ \pi^-$
125 ± 25	$\begin{smallmatrix} +10 \\ -15 \end{smallmatrix}$	29 ABLIKIM	05Q BES2	$\psi(2S) \rightarrow \gamma \pi^+ \pi^- K^+ K^-$
125 ± 20		ABLIKIM	04E BES2	$J/\psi \rightarrow \omega K^+ K^-$
166	$\begin{smallmatrix} +5 \\ -8 \end{smallmatrix}$	30 BAI	03G BES	$J/\psi \rightarrow \gamma K \bar{K}$
120	$\begin{smallmatrix} +50 \\ -40 \end{smallmatrix}$	30 BAI	00A BES	$J/\psi \rightarrow \gamma (\pi^+ \pi^- \pi^+ \pi^-)$
120 ± 26		31 BARBERIS	00E	$450 p p \rightarrow p_f \eta \eta p_S$
126 ± 16	±18	32 BARBERIS	99D OMEG	$450 p p \rightarrow K^+ K^-, \pi^+ \pi^-$
105 ± 34		33 FRENCH	99	$300 p p \rightarrow p_f (K^+ K^-) p_S$
166.4 ± 33.2		34 AUGUSTIN	88 DM2	$J/\psi \rightarrow \gamma K^+ K^-, K_S^0 K_S^0$
136 ± 28		34 AUGUSTIN	87 DM2	$J/\psi \rightarrow \gamma \pi^+ \pi^-$
130 ± 20		35 BALTRUSAIT..	87 MRK3	$J/\psi \rightarrow \gamma K^+ K^-$
57 ± 38		36 WILLIAMS	84 MPSF	$200 \pi^- N \rightarrow 2K_S^0 X$
160 ± 80		BLOOM	83 CBAL	$J/\psi \rightarrow \gamma 2\eta$

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

148	+ 40 - 30		AMSLER	06	CBAR	1.64	$\bar{p}p \rightarrow K^+ K^- \pi^0$
188	± 13	80k 29,37	UMAN	06	E835	5.2	$\bar{p}p \rightarrow \eta\eta\pi^0$
250	± 30		VLADIMIRSK...	06	SPEC	40	$\pi^- p \rightarrow K_S^0 K_S^0 n$
270	+ 60 - 30		38 ABLIKIM	05	BES2		$J/\psi \rightarrow \phi\pi^+\pi^-$
260	± 50		29 BINON	05	GAMS	33	$\pi^- p \rightarrow \eta\eta n$
38	+ 20 - 14	74	37 CHEKANOV	04	ZEUS		$ep \rightarrow K_S^0 K_S^0 X$
144	± 30		39,40 ANISOVICH	03	RVUE		
320	+ 50 - 20		40,41 ANISOVICH	03	RVUE		
102	± 26		TIKHOMIROV	03	SPEC	40.0	$\pi^- C \rightarrow K_S^0 K_S^0 K_L^0 X$
267	± 44	3651	30,42 NICHITIU	02	OBLX		
220	± 40		43,44 ANISOVICH	99B	SPEC	0.6-1.2	$p\bar{p} \rightarrow \eta\eta\pi^0$
100	± 25		30 BARBERIS	99	OMEG	450	$pp \rightarrow p_S p_f K^+ K^-$
160	± 30		30 BARBERIS	99B	OMEG	450	$pp \rightarrow p_S p_f \pi^+ \pi^-$
250	± 140		45 ANISOVICH	98B	RVUE		Compilation
30	± 7	57	46 BARKOV	98			$\pi^- p \rightarrow K_S^0 K_S^0 n$
103	± 18	+30 -11	35 BAI	96C	BES		$J/\psi \rightarrow \gamma K^+ K^-$
85	± 24	+22 -19	30 BAI	96C	BES		$J/\psi \rightarrow \gamma K^+ K^-$
56	± 19		BALOSHIN	95	SPEC	40	$\pi^- C \rightarrow K_S^0 K_S^0 X$
160	± 40		47 BUGG	95	MRK3		$J/\psi \rightarrow \gamma\pi^+\pi^-\pi^+\pi^-$
160	+ 60 - 20		35 BUGG	95	MRK3		$J/\psi \rightarrow \gamma\pi^+\pi^-\pi^+\pi^-$
264	± 25		34 ARMSTRONG	93C	E760		$\bar{p}p \rightarrow \pi^0\eta\eta \rightarrow 6\gamma$
200	to 300		BREAKSTONE	93	SFM		$pp \rightarrow pp\pi^+\pi^-\pi^+\pi^-$
< 80	90% CL		48 ALDE	92D	GAM2	38	$\pi^- p \rightarrow \eta\eta N^*$
181	± 30		49 ARMSTRONG	89D	OMEG	300	$pp \rightarrow ppK^+ K^-$
104	± 30		49 ARMSTRONG	89D	OMEG	300	$pp \rightarrow ppK_S^0 K_S^0$
30	± 20		35 BOLONKIN	88	SPEC	40	$\pi^- p \rightarrow K_S^0 K_S^0 n$
350	± 150		30 BOLONKIN	88	SPEC	40	$\pi^- p \rightarrow K_S^0 K_S^0 n$
148	± 17		50 FALVARD	88	DM2		$J/\psi \rightarrow \phi K^+ K^-, K_S^0 K_S^0$
184	± 6		51 FALVARD	88	DM2		$J/\psi \rightarrow \phi K^+ K^-, K_S^0 K_S^0$
122	+ 74 - 15		52 LONGACRE	86	RVUE	22	$\pi^- p \rightarrow n2K_S^0$
200	± 100		BURKE	82	MRK2		$J/\psi \rightarrow \gamma 2\rho$
220	+100 - 70		53,54 EDWARDS	82D	CBAL		$J/\psi \rightarrow \gamma 2\eta$
200	+156 - 9		55 ETKIN	82B	MPS	23	$\pi^- p \rightarrow n2K_S^0$

²⁸In the SU(3) based model with a specific interference pattern of the $f_2(1270)$, $a_2^0(1320)$, and $f_2'(1525)$ mesons incoherently added to the $f_0(1710)$ and non-resonant background.

²⁹Breit-Wigner width.

³⁰ $J^P = 0^+$.

³¹T-matrix pole.

³²Supersedes BARBERIS 99 and BARBERIS 99B.

³³ $J^P = 0^+$, supersedes by ARMSTRONG 89D.

- 34 No J^{PC} determination.
 35 $J^P = 2^+$.
 36 No J^{PC} determination.
 37 Systematic errors not estimated.
 38 This state may be different from $f_0(1710)$, see CLOSE 05.
 39 (Solution I)
 40 K-matrix pole, assuming $J^P = 0^+$, 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.
 41 (Solution I)
 42 Decaying to $f_0(1370) \pi \pi$.
 43 $J^P = 0^+$.
 44 Not seen by AMSLER 02.
 45 T-matrix pole, assuming $J^P = 0^+$
 46 No J^{PC} determination.
 47 From a fit to the 0^+ partial wave.
 48 ALDE 92D combines all the GAMS-2000 data.
 49 $J^P = 2^+$, (0^+ excluded).
 50 From an analysis ignoring interference with $f_2'(1525)$.
 51 From an analysis including interference with $f_2'(1525)$.
 52 Uses MRK3 data. From a partial-wave analysis of data using a K-matrix formalism with 5 poles, but assuming spin 2. Fit with constrained inelasticity.
 53 $J^P = 2^+$ preferred.
 54 From fit neglecting nearby $f_2'(1525)$. Replaced by BLOOM 83.
 55 From an amplitude analysis of the $K_S^0 K_S^0$ system, superseded by LONGACRE 86.

$f_0(1710)$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
Γ_1 $K \bar{K}$	seen
Γ_2 $\eta \eta$	seen
Γ_3 $\pi \pi$	seen
Γ_4 $\gamma \gamma$	
Γ_5 $\omega \omega$	seen

$f_0(1710)$ $\Gamma(i)\Gamma(\gamma\gamma)/\Gamma(\text{total})$

$\Gamma(K\bar{K}) \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}}$					$\Gamma_1\Gamma_4/\Gamma$
VALUE (eV)	CL%	DOCUMENT ID	TECN	COMMENT	
<110	95	56 BEHREND	89C CELL	$\gamma\gamma \rightarrow K_S^0 K_S^0$	

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<480	95	ALBRECHT	90G ARG	$\gamma\gamma \rightarrow K^+ K^-$
<280	95	56 ALTHOFF	85B TASS	$\gamma\gamma \rightarrow K \bar{K} \pi$

56 Assuming helicity 2.

$\Gamma(\pi\pi) \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}}$					$\Gamma_3\Gamma_4/\Gamma$
VALUE (keV)	CL%	DOCUMENT ID	TECN	COMMENT	
<0.82	95	57 BARATE	00E ALEP	$\gamma\gamma \rightarrow \pi^+\pi^-$	
57 Assuming spin 0.					

$f_0(1710)$ BRANCHING RATIOS

$\Gamma(K\bar{K})/\Gamma_{\text{total}}$					Γ_1/Γ
VALUE		DOCUMENT ID	TECN	COMMENT	

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

0.36 ± 0.12		ALBALADEJO 08	RVUE		
$0.38^{+0.09}_{-0.19}$	58,59	LONGACRE 86	MPS	$22 \pi^- p \rightarrow n 2K_S^0$	

$\Gamma(\eta\eta)/\Gamma_{\text{total}}$					Γ_2/Γ
VALUE		DOCUMENT ID	TECN	COMMENT	

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

0.22 ± 0.12		ALBALADEJO 08	RVUE		
$0.18^{+0.03}_{-0.13}$	58,59	LONGACRE 86	RVUE		

$\Gamma(\pi\pi)/\Gamma_{\text{total}}$					Γ_3/Γ
VALUE		DOCUMENT ID	TECN	COMMENT	

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

not seen		AMSLER 02	CBAR	$0.9 \bar{p}p \rightarrow \pi^0\eta\eta, \pi^0\pi^0\pi^0$	
$0.039^{+0.002}_{-0.024}$	58,59	LONGACRE 86	RVUE		

$\Gamma(\pi\pi)/\Gamma(K\bar{K})$					Γ_3/Γ_1
VALUE	CL%	DOCUMENT ID	TECN	COMMENT	

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

$0.41^{+0.11}_{-0.17}$		ABLIKIM 06V	BES2	$e^+e^- \rightarrow J/\psi \rightarrow \gamma\pi^+\pi^-$	
0.32 ± 0.14		ALBALADEJO 08	RVUE		
< 0.11	95	60 ABLIKIM 04E	BES2	$J/\psi \rightarrow \omega K^+K^-$	
$5.8^{+9.1}_{-5.5}$		61 ANISOVICH 02D	SPEC	Combined fit	
$0.2 \pm 0.024 \pm 0.036$		BARBERIS 99D	OMEG 450	$pp \rightarrow K^+K^-, \pi^+\pi^-$	
0.39 ± 0.14		ARMSTRONG 91	OMEG 300	$pp \rightarrow pp\pi\pi, ppK\bar{K}$	

$\Gamma(\eta\eta)/\Gamma(K\bar{K})$					Γ_2/Γ_1
VALUE	CL%	DOCUMENT ID	TECN	COMMENT	

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

0.48 ± 0.15		BARBERIS 00E		$450 pp \rightarrow p_f\eta\eta p_S$	
$0.46^{+0.70}_{-0.38}$		61 ANISOVICH 02D	SPEC	Combined fit	
< 0.02	90	62 PROKOSHKIN 91	GA24	$300 \pi^- p \rightarrow \pi^- p\eta\eta$	

$\Gamma(\omega\omega)/\Gamma_{\text{total}}$ Γ_5/Γ

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
seen	180	ABLIKIM	06H BES	$J/\psi \rightarrow \gamma\omega\omega$
58	From a partial-wave analysis of data using a K-matrix formalism with 5 poles, but assuming spin 2.			
59	Fit with constrained inelasticity.			
60	Using data from ABLIKIM 04A.			
61	From a combined K-matrix analysis of Crystal Barrel ($0. \rho\bar{p} \rightarrow \pi^0\pi^0\pi^0, \pi^0\eta\eta, \pi^0\pi^0\eta$), 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.			
62	Combining results of GAM4 with those of ARMSTRONG 89D.			

 $f_0(1710)$ REFERENCES

ALBALADEJO	08	PRL 101 252002	M. Albaladejo, J.A. Oller	
CHEKANOV	08	PRL 101 112003	S. Chekanov <i>et al.</i>	(ZEUS Collab.)
ABLIKIM	06H	PR D73 112007	M. Ablikim <i>et al.</i>	(BES Collab.)
ABLIKIM	06V	PL B642 441	M. Ablikim <i>et al.</i>	(BES Collab.)
AMSLER	06	PL B639 165	C. Amsler <i>et al.</i>	(CBAR Collab.)
UMAN	06	PR D73 052009	I. Uman <i>et al.</i>	(FNAL E835)
VLADIMIRSK...	06	PAN 69 493	V.V. Vladimirovsky <i>et al.</i>	(ITEP, Moscow)
		Translated from YAF 69 515.		
ABLIKIM	05	PL B607 243	M. Ablikim <i>et al.</i>	(BES Collab.)
ABLIKIM	05Q	PR D72 092002	M. Ablikim <i>et al.</i>	(BES Collab.)
BINON	05	PAN 68 960	F. Binon <i>et al.</i>	
		Translated from YAF 68 998.		
CLOSE	05	PR D71 094022	F.E. Close, Q. Zhao	
ABLIKIM	04A	PL B598 149	M. Ablikim <i>et al.</i>	(BES Collab.)
ABLIKIM	04E	PL B603 138	M. Ablikim <i>et al.</i>	(BES Collab.)
CHEKANOV	04	PL B578 33	S. Chekanov <i>et al.</i>	(ZEUS Collab.)
PDG	04	PL B592 1	S. Eidelman <i>et al.</i>	(PDG Collab.)
ANISOVICH	03	EPJ A16 229	V.V. Anisovich <i>et al.</i>	
BAI	03G	PR D68 052003	J.Z. Bai <i>et al.</i>	(BES Collab.)
TIKHOMIROV	03	PAN 66 828	G.D. Tikhomirov <i>et al.</i>	
		Translated from YAF 66 860.		
AMSLER	02	EPJ C23 29	C. Amsler <i>et al.</i>	
ANISOVICH	02D	PAN 65 1545	V.V. Anisovich <i>et al.</i>	
		Translated from YAF 65 1583.		
NICHITIU	02	PL B545 261	F. Nichitiu <i>et al.</i>	(OBELIX Collab.)
BAI	00A	PL B472 207	J.Z. Bai <i>et al.</i>	(BES Collab.)
BARATE	00E	PL B472 189	R. Barate <i>et al.</i>	(ALEPH Collab.)
BARBERIS	00E	PL B479 59	D. Barberis <i>et al.</i>	(WA 102 Collab.)
ANISOVICH	99B	PL B449 154	A.V. Anisovich <i>et al.</i>	
BARBERIS	99	PL B453 305	D. Barberis <i>et al.</i>	(Omega Expt.)
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.)
FRENCH	99	PL B460 213	B. French <i>et al.</i>	(WA76 Collab.)
ANISOVICH	98B	SPU 41 419	V.V. Anisovich <i>et al.</i>	
		Translated from UFN 168 481.		
BAI	98H	PRL 81 1179	J.Z. Bai <i>et al.</i>	(BES Collab.)
BARKOV	98	JETPL 68 764	B.P. Barkov <i>et al.</i>	
ABREU	96C	PL B379 309	P. Abreu <i>et al.</i>	(DELPHI Collab.)
BAI	96C	PRL 77 3959	J.Z. Bai <i>et al.</i>	(BES Collab.)
BALOSHIN	95	PAN 58 46	O.N. Baloshin <i>et al.</i>	(ITEP)
		Translated from YAF 58 50.		
BUGG	95	PL B353 378	D.V. Bugg <i>et al.</i>	(LOQM, PNPI, WASH)
ARMSTRONG	93C	PL B307 394	T.A. Armstrong <i>et al.</i>	(FNAL, FERR, GENO+)
BREAKSTONE	93	ZPHY C58 251	A.M. Breakstone <i>et al.</i>	(IOWA, CERN, DORT+)
ALDE	92D	PL B284 457	D.M. Alde <i>et al.</i>	(GAM2 Collab.)
Also		SJNP 54 451	D.M. Alde <i>et al.</i>	(GAM2 Collab.)
		Translated from YAF 54 745.		
ARMSTRONG	91	ZPHY C51 351	T.A. Armstrong <i>et al.</i>	(ATHU, BARI, BIRM+)
PROKOSHKIN	91	SPD 36 155	Y.D. Prokoshkin	(GAM2, GAM4 Collab.)
		Translated from DANS 316 900.		

ALBRECHT	90G	ZPHY C48 183	H. Albrecht <i>et al.</i>	(ARGUS Collab.)
ARMSTRONG	89D	PL B227 186	T.A. Armstrong, M. Benayoun	(ATHU, BARI, BIRM+)
BEHREND	89C	ZPHY C43 91	H.J. Behrend <i>et al.</i>	(CELLO Collab.)
AUGUSTIN	88	PRL 60 2238	J.E. Augustin <i>et al.</i>	(DM2 Collab.)
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+)
AUGUSTIN	87	ZPHY C36 369	J.E. Augustin <i>et al.</i>	(LALO, CLER, FRAS+)
BALTRUSAIT...	87	PR D35 2077	R.M. Baltrusaitis <i>et al.</i>	(Mark III Collab.)
ALDE	86C	PL B182 105	D.M. Alde <i>et al.</i>	(SERP, BELG, LANL, LAPP)
LONGACRE	86	PL B177 223	R.S. Longacre <i>et al.</i>	(BNL, BRAN, CUNY+)
ALTHOFF	85B	ZPHY C29 189	M. Althoff <i>et al.</i>	(TASSO Collab.)
WILLIAMS	84	PR D30 877	E.G.H. Williams <i>et al.</i>	(VAND, NDAM, TUFTS+)
BLOOM	83	ARNS 33 143	E.D. Bloom, C. Peck	(SLAC, CIT)
BURKE	82	PRL 49 632	D.L. Burke <i>et al.</i>	(LBL, SLAC)
EDWARDS	82D	PRL 48 458	C. Edwards <i>et al.</i>	(CIT, HARV, PRIN+)
ETKIN	82B	PR D25 1786	A. Etkin <i>et al.</i>	(BNL, CUNY, TUFTS, VAND)
ETKIN	82C	PR D25 2446	A. Etkin <i>et al.</i>	(BNL, CUNY, TUFTS, VAND)
