NODE=M027

$\eta(1405)$

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

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NODE=M027

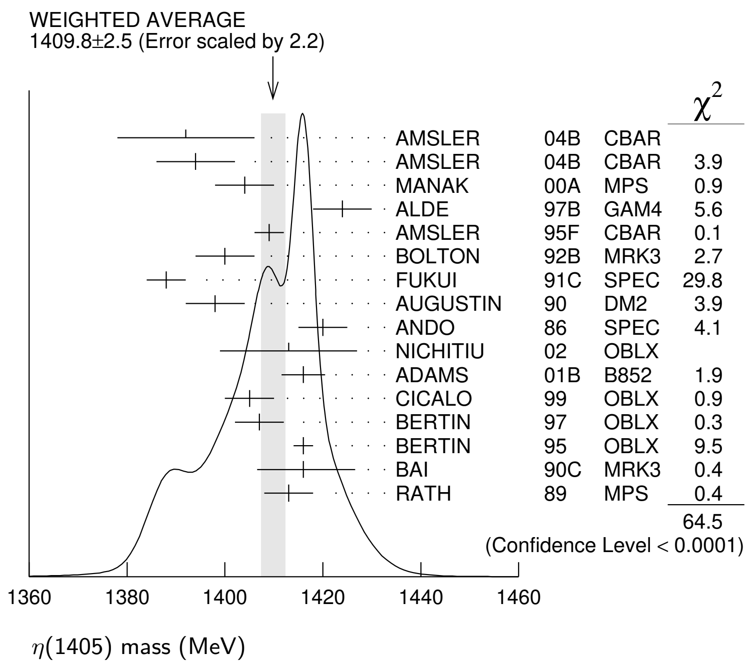
$\eta(1405)$ MASS

NODE=M027205

VALUE (MeV)	*DOCUMENT ID*

NODE=M027MX

1409.8±2.5 OUR AVERAGE Includes data from the 2 datablocks that follow this one. Error includes scale factor of 2.2. See the ideogram below.



$\eta\pi\pi$ MODE

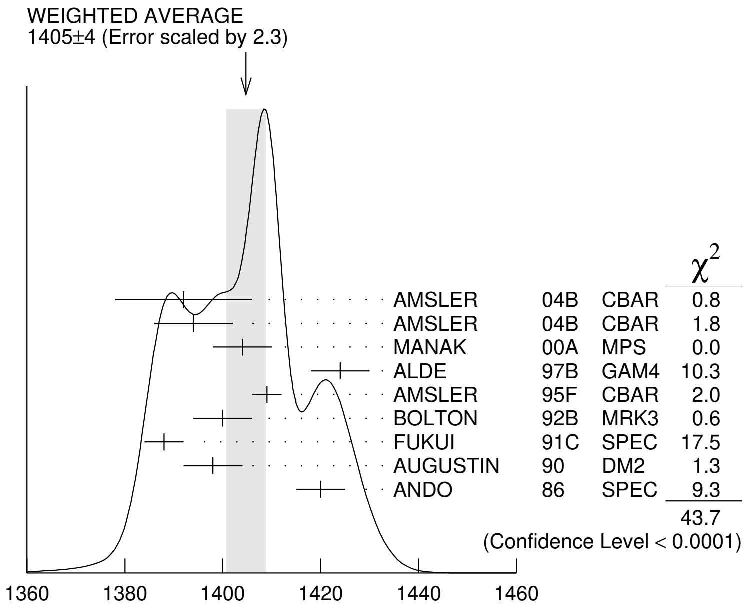
NODE=M027M1
NODE=M027M1

The data in this block is included in the average printed for a previous datablock.

1405± 4 OUR AVERAGE Error includes scale factor of 2.3. See the ideogram below.

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
1392±14	900 ± 375	AMSLER	04B	CBAR	0 $\overline{p}p \to \pi^+\pi^-\pi^+\pi^-\eta$
1394± 8	6.6 ± 2.0k	AMSLER	04B	CBAR	0 $\overline{p}p \to \pi^+\pi^-\pi^0\pi^0\eta$
1404± 6	9082	MANAK	00A	MPS	18 $\pi^- p \to \eta\pi^+\pi^- n$
1424± 6	2200	ALDE	97B	GAM4	100 $\pi^- p \to \eta\pi^0\pi^0 n$
1409± 3		AMSLER	95F	CBAR	0 $\overline{p}p \to \pi^+\pi^-\pi^0\pi^0\eta$
1400± 6		[1] BOLTON	92B	MRK3	$J/\psi \to \gamma\eta\pi^+\pi^-$
1388± 4		FUKUI	91C	SPEC	8.95 $\pi^- p \to \eta\pi^+\pi^- n$
1398± 6	261	[2] AUGUSTIN	90	DM2	$J/\psi \to \gamma\eta\pi^+\pi^-$
1420± 5		ANDO	86	SPEC	8 $\pi^- p \to \eta\pi^+\pi^- n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1385± 7		BAI	99	BES	$J/\psi \to \gamma\eta\pi^+\pi^-$

OCCUR=2



$\eta(1405)$ mass, $\eta\pi\pi$ mode (MeV)

$K\overline{K}\pi$ MODE ($a_0(980)\pi$ or direct $K\overline{K}\pi$)

NODE=M027M4
NODE=M027M4

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT	
The data in this block is included in the average printed for a previous datablock.					
1413.9± 1.7 OUR AVERAGE		Error includes scale factor of 1.1.			
1413 ±14	3651	[3] NICHITIU 02	OBLX		
1416 ± 4 ±2	20k	ADAMS 01B	B852	18 GeV $\pi^- p \to K^+ K^- \pi^0 n$	
1405 ± 5		[4] CICALO 99	OBLX	0 $\overline{p}p \to K^\pm K^0_S \pi^\mp \pi^+ \pi^-$	
1407 ± 5		[4] BERTIN 97	OBLX	0 $\overline{p}p \to K^\pm (K^0) \pi^\mp \pi^+ \pi^-$	
1416 ± 2		[4] BERTIN 95	OBLX	0 $\overline{p}p \to K\overline{K}\pi\pi\pi$	
1416 ± 8 $^{+7}_{-5}$	700	[5] BAI 90C	MRK3	$J/\psi \to \gamma K^0_S K^\pm \pi^\mp$	OCCUR=2
1413 ± 5		[5] RATH 89	MPS	21.4 $\pi^- p \to n K^0_S K^0_S \pi^0$	OCCUR=3
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1459 ± 5		[6] AUGUSTIN 92	DM2	$J/\psi \to \gamma K\overline{K}\pi$	

$\pi\pi\gamma$ MODE

NODE=M027M2
NODE=M027M2

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT	
1390±12	235 ± 91	AMSLER 04B	CBAR	0 $\overline{p}p \to \pi^+\pi^-\pi^+\pi^-\gamma$	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1424±10±11	547	BAI 04J	BES2	$J/\psi \to \gamma\gamma\pi^+\pi^-$	
1401±18		[7,8] AUGUSTIN 90	DM2	$J/\psi \to \pi^+\pi^-\gamma\gamma$	OCCUR=4
1432± 8		[8] COFFMAN 90	MRK3	$J/\psi \to \pi^+\pi^- 2\gamma$	

4π MODE

NODE=M027M3
NODE=M027M3

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1420±20		BUGG 95	MRK3	$J/\psi \to \gamma\pi^+\pi^-\pi^+\pi^-$
1489±12	3270	[9] BISELLO 89B	DM2	$J/\psi \to 4\pi\gamma$

$K\overline{K}\pi$ MODE (unresolved)

NODE=M027M6
NODE=M027M6

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1437.6± 3.2	249 ± 35	[10,11] ABLIKIM 08E	BES2	$J/\psi \to \omega K^0_S K^+ \pi^-$ + c.c.	
1445.9± 5.7	62 ± 18	[10,11] ABLIKIM 08E	BES2	$J/\psi \to \omega K^+ K^- \pi^0$	OCCUR=2
1442 ±10	410	[10] BAI 98C	BES	$J/\psi \to \gamma K^+ K^- \pi^0$	
1445 ± 8	693	[10] AUGUSTIN 90	DM2	$J/\psi \to \gamma K^0_S K^\pm \pi^\mp$	
1433 ± 8	296	[10] AUGUSTIN 90	DM2	$J/\psi \to \gamma K^+ K^- \pi^0$	OCCUR=2
1413 ± 8	500	[10] DUCH 89	ASTE	$\overline{p}p \to \pi^+\pi^- K^\pm \pi^\mp K^0$	

1453	$\pm$ 7	170	[10] RATH	89	MPS	21.4 $\pi^- p \to K^0_S K^0_S \pi^0 n$	OCCUR=2
1419	$\pm$ 1	8800	[10] BIRMAN	88	MPS	8 $\pi^- p \to K^+ \overline{K}^0 \pi^- n$	
1424	$\pm$ 3	620	[10] REEVES	86	SPEC	6.6 $p\overline{p} \to K\overline{K}\pi X$	
1421	$\pm$ 2		[10] CHUNG	85	SPEC	8 $\pi^- p \to K\overline{K}\pi n$	
1440	$^{+20}_{-15}$	174	[10] EDWARDS	82E	CBAL	$J/\psi \to \gamma K^+ K^- \pi^0$	
1440	$^{+10}_{-15}$		[10] SCHARRE	80	MRK2	$J/\psi \to \gamma K^0_S K^\pm \pi^\mp$	
1425	$\pm$ 7	800	[10,12] BAILLON	67	HBC	0 $\overline{p}p \to K\overline{K}\pi\pi\pi$	

[1] From fit to the $a_0(980)\pi$ 0^{-+} partial wave. NODE=M027M1;LINKAGE=J1
[2] Best fit with a single Breit Wigner. NODE=M027M1;LINKAGE=A1
[3] Decaying dominantly directly to $K^+ K^- \pi^0$. NODE=M027M;LINKAGE=NC
[4] Decaying into $(K\overline{K})_S\pi$, $(K\pi)_S\overline{K}$, and $a_0(980)\pi$. NODE=M027M4;LINKAGE=FX
[5] From fit to the $a_0(980)\pi$ 0^{-+} partial wave. Cannot rule out a $a_0(980)\pi$ 1^{++} partial wave. NODE=M027M4;LINKAGE=C2
[6] Excluded from averaging because averaging would be meaningless. NODE=M027M4;LINKAGE=AA
[7] Best fit with a single Breit Wigner. NODE=M027M2;LINKAGE=E
[8] This peak in the $\gamma\rho$ channel may not be related to the $\eta(1405)$. NODE=M027M2;LINKAGE=X
[9] Estimated by us from various fits. NODE=M027M3;LINKAGE=E
[10] These experiments identify only one pseudoscalar in the 1400–1500 range. Data could also refer to $\eta(1475)$. NODE=M027M;LINKAGE=NP
[11] Systematic uncertainty not evaluated. NODE=M027M;LINKAGE=NS
[12] From best fit of 0^{-+} partial wave , 50% $K^*(892)K$, 50% $a_0(980)\pi$. NODE=M027M6;LINKAGE=H

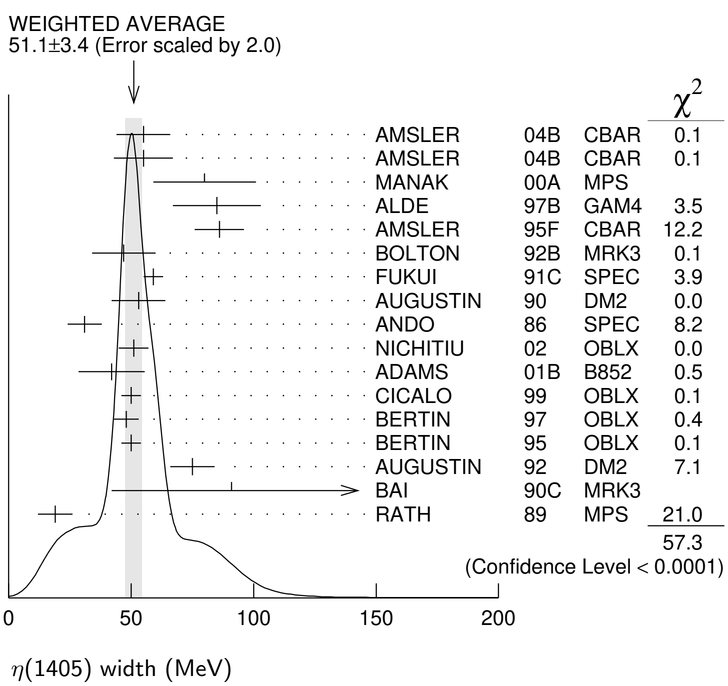
$\eta(1405)$ WIDTH

NODE=M027210

NODE=M027WX

VALUE (MeV) *DOCUMENT ID*

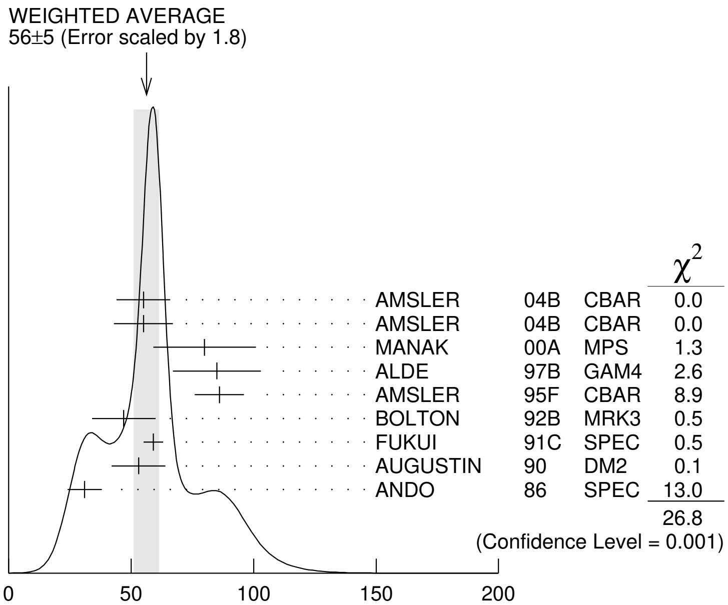
51.1±3.4 OUR AVERAGE Includes data from the 2 datablocks that follow this one. Error includes scale factor of 2.0. See the ideogram below.



$\eta\pi\pi$ MODE

NODE=M027W1
NODE=M027W1

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*	
The data in this block is included in the average printed for a previous datablock.						
56± 5 OUR AVERAGE	Error includes scale factor of 1.8. See the ideogram below.					
55±11	900 ± 375	AMSLER	04B	CBAR	0 $\overline{p}p \to \pi^+\pi^-\pi^+\pi^-\eta$	
55±12	6.6 ± 2.0k	AMSLER	04B	CBAR	0 $\overline{p}p \to \pi^+\pi^-\pi^0\pi^0\gamma$	OCCUR=2
80±21	9082	MANAK	00A	MPS	18 $\pi^- p \to \eta\pi^+\pi^- n$	
85±18	2200	ALDE	97B	GAM4	100 $\pi^- p \to \eta\pi^0\pi^0 n$	
86±10		AMSLER	95F	CBAR	0 $\overline{p}p \to \pi^+\pi^-\pi^0\pi^0\eta$	
47±13		[13] BOLTON	92B	MRK3	$J/\psi \to \gamma\eta\pi^+\pi^-$	
59± 4		FUKUI	91C	SPEC	8.95 $\pi^- p \to \eta\pi^+\pi^- n$	
53±11		[14] AUGUSTIN	90	DM2	$J/\psi \to \gamma\eta\pi^+\pi^-$	
31± 7		ANDO	86	SPEC	8 $\pi^- p \to \eta\pi^+\pi^- n$	



$\eta(1405)$ width $\eta\pi\pi$ mode (MeV)

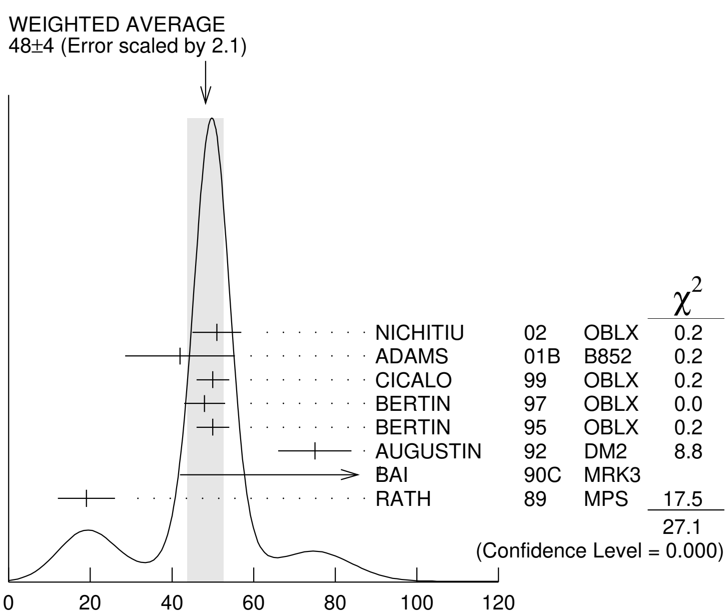
$K\overline{K}\pi$ MODE ($a_0(980)\pi$ or direct $K\overline{K}\pi$)

NODE=M027W4
NODE=M027W4

VALUE (MeV)	*EVTS*	*DOCUMENT ID*	*TECN*	*COMMENT*

The data in this block is included in the average printed for a previous datablock.

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*	
48± 4 OUR AVERAGE		Error includes scale factor of 2.1. See the ideogram below.				
51± 6	3651	[15] NICHITIU	02	OBLX		
42±10± 9	20k	ADAMS	01B	B852	18 GeV $\pi^- p \to K^+ K^- \pi^0 n$	
50± 4		CICALO	99	OBLX	0 $\overline{p}p \to K^\pm K^0_S \pi^\mp \pi^+ \pi^-$	
48± 5		[16] BERTIN	97	OBLX	0.0 $\overline{p}p \to K^\pm (K^0) \pi^\mp \pi^+ \pi^-$	
50± 4		[16] BERTIN	95	OBLX	0 $\overline{p}p \to K\overline{K}\pi\pi\pi$	
75± 9		AUGUSTIN	92	DM2	$J/\psi \to \gamma K\overline{K}\pi$	
$91^{+67}_{-31}{}^{+15}_{-38}$		[17] BAI	90C	MRK3	$J/\psi \to \gamma K^0_S K^\pm \pi^\mp$	OCCUR=2
19± 7		[17] RATH	89	MPS	21.4 $\pi^- p \to n K^0_S K^0_S \pi^0$	OCCUR=3



$\eta(1405)$ width $K\overline{K}\pi$ mode ($a_0(980)$ π dominant)

$\pi\pi\gamma$ MODE

NODE=M027W2
NODE=M027W2

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
64 ±18	235 ± 91	AMSLER	04B	CBAR	0 $\overline{p}p \to \pi^+\pi^-\pi^+\pi^-\gamma$

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

101.0± 8.8±8.8	547	BAI	04J	BES2	$J/\psi \to \gamma\gamma\pi^+\pi^-$	OCCUR=2
174 ±44		AUGUSTIN	90	DM2	$J/\psi \to \pi^+\pi^-\gamma\gamma$	
90 ±26		[18] COFFMAN	90	MRK3	$J/\psi \to \pi^+\pi^- 2\gamma$	

4π MODE

NODE=M027W3

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
160±30		BUGG	95	MRK3	$J/\psi \to \gamma\pi^+\pi^-\pi^+\pi^-$
144±13	3270	[19] BISELLO	89B	DM2	$J/\psi \to 4\pi\gamma$

$K\overline{K}\pi$ MODE (unresolved)

NODE=M027W6

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT	
• • • We do not use the following data for averages, fits, limits, etc. • • •						
48.9± 9.0	249 ± 35	[20,21] ABLIKIM	08E	BES2	$J/\psi \to \omega K^0_S K^+\pi^-$ + c.c.	
34.2±18.5	62 ± 18	[20,21] ABLIKIM	08E	BES2	$J/\psi \to \omega K^+K^-\pi^0$	OCCUR=2
93 ±14	296	[20] AUGUSTIN	90	DM2	$J/\psi \to \gamma K^+K^-\pi^0$	OCCUR=2
105 ±10	693	[20] AUGUSTIN	90	DM2	$J/\psi \to \gamma K^0_S K^\pm\pi^\mp$	OCCUR=3
62 ±16	500	[20] DUCH	89	ASTE	$\overline{p}p \to K\overline{K}\pi\pi\pi$	
100 ±11	170	[20] RATH	89	MPS	21.4 $\pi^- p \to K^0_S K^0_S \pi^0 n$	OCCUR=2
66 ± 2	8800	[20] BIRMAN	88	MPS	8 $\pi^- p \to K^+\overline{K}^0\pi^- n$	
60 ±10	620	[20] REEVES	86	SPEC	6.6 $p\overline{p} \to KK\pi X$	
60 ±10		[20] CHUNG	85	SPEC	8 $\pi^- p \to K\overline{K}\pi n$	
55 $^{+20}_{-30}$	174	[20] EDWARDS	82E	CBAL	$J/\psi \to \gamma K^+K^-\pi^0$	
50 $^{+30}_{-20}$		[20] SCHARRE	80	MRK2	$J/\psi \to \gamma K^0_S K^\pm\pi^\mp$	
80 ±10	800	[20,22] BAILLON	67	HBC	0.0 $\overline{p}p \to K\overline{K}\pi\pi\pi$	

[13] From fit to the $a_0(980)\pi$ 0^{-+} partial wave. NODE=M027W1;LINKAGE=A1

[14] From $\eta\pi^+\pi^-$ mass distribution - mainly $a_0(980)\pi$ - no spin–parity determination available. NODE=M027W1;LINKAGE=D1

[15] Decaying dominantly directly to $K^+K^-\pi^0$. NODE=M027W;LINKAGE=NC

[16] Decaying into $(K\overline{K})_S\pi$, $(K\pi)_S\overline{K}$, and $a_0(980)\pi$. NODE=M027W4;LINKAGE=FX

[17] From fit to the $a_0(980)\pi$ 0^{-+} partial wave , but $a_0(980)\pi$ 1^{++} cannot be excluded. NODE=M027W4;LINKAGE=C

[18] This peak in the $\gamma\rho$ channel may not be related to the $\eta(1405)$. NODE=M027W2;LINKAGE=X

[19] Estimated by us from various fits. NODE=M027W3;LINKAGE=F2

[20] These experiments identify only one pseudoscalar in the 1400–1500 range. Data could also refer to $\eta(1475)$. NODE=M027W;LINKAGE=NP

[21] Systematic uncertainty not evaluated. NODE=M027W;LINKAGE=NS

[22] From best fit to 0^{-+} partial wave , 50% $K^*(892)K$, 50% $a_0(980)\pi$. NODE=M027W6;LINKAGE=H1

η(1405) DECAY MODES

NODE=M027215;NODE=M027

	Mode	Fraction (Γ_i/Γ)	Confidence level	
Γ_1	$K\overline{K}\pi$	seen		DESIG=2;OUR EST;→ NOT CHECKED ←
Γ_2	$\eta\pi\pi$	seen		DESIG=5;OUR EST;→ NOT CHECKED ←
Γ_3	$a_0(980)\pi$	seen		DESIG=4;OUR EST;→ NOT CHECKED ←
Γ_4	$\eta(\pi\pi)_{S\text{-wave}}$	seen		DESIG=9;OUR EST;→ NOT CHECKED ←
Γ_5	$f_0(980)\eta$	seen		DESIG=10;OUR EST;→ NOT CHECKED ←
Γ_6	4π	seen		DESIG=6;OUR EST;→ NOT CHECKED ←
Γ_7	$\rho\rho$	<58 %	99.85%	DESIG=12
Γ_8	$\gamma\gamma$			DESIG=7
Γ_9	$\rho^0\gamma$			DESIG=8
Γ_{10}	$\phi\gamma$			DESIG=13
Γ_{11}	$K^*(892)K$	seen		DESIG=11;OUR EST;→ NOT CHECKED ←

η(1405) Γ(i)Γ(γγ)/Γ(total)

NODE=M027220

$\Gamma(K\overline{K}\pi) \times \Gamma(\gamma\gamma)/\Gamma_{total}$ $\Gamma_1\Gamma_8/\Gamma$

NODE=M027G3

VALUE (keV)	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.035	90	[23,24] AHOHE	05	CLE2	10.6 $e^+e^- \to e^+e^- K^0_S K^\pm\pi^\mp$

$\Gamma(\eta\pi\pi) \times \Gamma(\gamma\gamma)/\Gamma_{total}$ — $\Gamma_2\Gamma_8/\Gamma$

NODE=M027G5

VALUE (keV)	CL%	DOCUMENT ID		TECN	COMMENT
<0.095	95	ACCIARRI	01G	L3	183–202 $e^+e^- \to e^+e^-\eta\pi^+\pi^-$

$\Gamma(\rho^0\gamma) \times \Gamma(\gamma\gamma)/\Gamma_{total}$ — $\Gamma_9\Gamma_8/\Gamma$

NODE=M027G8

VALUE (keV)	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1.5	95	ALTHOFF	84E	TASS	$e^+e^- \to e^+e^-\pi^+\pi^-\gamma$

[23] Using $\eta(1405)$ mass and width 1410 MeV and 51 MeV, respectively. NODE=M027G3;LINKAGE=AH

[24] Assuming three-body phase-space decay to $K^0_S K^\pm\pi^\mp$. NODE=M027G3;LINKAGE=B3

$\eta(1405)$ BRANCHING RATIOS

NODE=M027225

$\Gamma(\eta\pi\pi)/\Gamma(K\overline{K}\pi)$ — Γ_2/Γ_1

NODE=M027R3

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1.09±0.48		[25] AMSLER	04B	CBAR	0 $\overline{p}p \to \pi^+\pi^-\pi^+\pi^-\eta$
<0.5	90	EDWARDS	83B	CBAL	$J/\psi \to \eta\pi\pi\gamma$
<1.1	90	SCHARRE	80	MRK2	$J/\psi \to \eta\pi\pi\gamma$
<1.5	95	FOSTER	68B	HBC	0.0 $\overline{p}p$

$\Gamma(\rho^0\gamma)/\Gamma(\eta\pi\pi)$ — Γ_9/Γ_2

NODE=M027R12

VALUE	DOCUMENT ID		TECN	COMMENT
0.111±0.064	AMSLER	04B	CBAR	0 $\overline{p}p$

$\Gamma(a_0(980)\pi)/\Gamma(K\overline{K}\pi)$ — Γ_3/Γ_1

NODE=M027R4

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
∼ 0.15		[26] BERTIN	95	OBLX	0 $\overline{p}p \to K\overline{K}\pi\pi\pi$
∼ 0.8	500	[26] DUCH	89	ASTE	$\overline{p}p \to \pi^+\pi^-K^\pm\pi^\mp K^0$
∼ 0.75		[26] REEVES	86	SPEC	6.6 $p\overline{p} \to KK\pi X$

$\Gamma(a_0(980)\pi)/\Gamma(\eta\pi\pi)$ — Γ_3/Γ_2

NODE=M027R2

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.29±0.10		ABELE	98E	CBAR	0 $p\overline{p} \to \eta\pi^0\pi^0\pi^0$
0.19±0.04	2200	[27] ALDE	97B	GAM4	100 $\pi^-p \to \eta\pi^0\pi^0 n$
0.56±0.04±0.03		[27] AMSLER	95F	CBAR	0 $\overline{p}p \to \pi^+\pi^-\pi^0\pi^0\eta$

$\Gamma(a_0(980)\pi)/\Gamma(\eta(\pi\pi)_{S\text{-wave}})$ — Γ_3/Γ_4

NODE=M027R9

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.91±0.12		ANISOVICH	01	SPEC	0.0 $\overline{p}p \to \eta\pi^+\pi^-\pi^+\pi^-$
0.15±0.04	9082	MANAK	00A	MPS	18 $\pi^-p \to \eta\pi^+\pi^-n$
0.70±0.12±0.20		[28] BAI	99	BES	$J/\psi \to \gamma\eta\pi^+\pi^-$

$\Gamma(\rho^0\gamma)/\Gamma(K\overline{K}\pi)$ — Γ_9/Γ_1

NODE=M027R7

VALUE	DOCUMENT ID		TECN	COMMENT
0.0152±0.0038	[29] COFFMAN	90	MRK3	$J/\psi \to \gamma\gamma\pi^+\pi^-$

$\Gamma(\eta(\pi\pi)_{S\text{-wave}})/\Gamma(\eta\pi\pi)$ — Γ_4/Γ_2

NODE=M027R8

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.81±0.04	2200	ALDE	97B	GAM4	100 $\pi^-p \to \eta\pi^0\pi^0 n$

$\Gamma(a_0(980)\pi)/\Gamma(\eta(\pi\pi)_{S\text{-wave}})$ — Γ_3/Γ_4

NODE=M027R10

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.32±0.07	[30] ANISOVICH	99I	SPEC	0.9–1.2 $\overline{p}p \to \eta 3\pi^0$

$\Gamma(\rho\rho)/\Gamma_{total}$ Γ_7/Γ

NODE=M027R13
NODE=M027R13

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.58	99.85	[25,31] AMSLER	04B	CBAR	0 $\overline{p}p$

$\Gamma(K^*(892)K)/\Gamma(a_0(980)\pi)$ Γ_{11}/Γ_3

NODE=M027R11
NODE=M027R11

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.084 ± 0.024	[32] ADAMS	01B	B852	18 GeV $\pi^- p \rightarrow K^+ K^- \pi^0 n$

$\Gamma(\phi\gamma)/\Gamma(\rho^0\gamma)$ Γ_{10}/Γ_9

NODE=M027R14
NODE=M027R14

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.77	95	[33] BAI	04J	BES2	$J/\psi \rightarrow \gamma\gamma K^+ K^-$

[25] Using the data of BAILLON 67 on $\overline{p}p \rightarrow K\overline{K}\pi$. NODE=M027R3;LINKAGE=AM

[26] Assuming that the $a_0(980)$ decays only into $K\overline{K}$. NODE=M027R4;LINKAGE=C

[27] Assuming that the $a_0(980)$ decays only into $\eta\pi$. NODE=M027R2;LINKAGE=A

[28] Assuming that the $a_0(980)$ decays only into $\eta\pi$. NODE=M027R9;LINKAGE=BK

[29] Using B($J/\psi \rightarrow \gamma\eta(1405) \rightarrow \gamma K\overline{K}\pi$)=$4.2\times10^{-3}$ and B($J/\psi \rightarrow \gamma\eta(1405) \rightarrow \gamma\gamma\rho^0$)=$6.4\times10^{-5}$ and assuming that the $\gamma\rho^0$ signal does not come from the $f_1(1420)$. NODE=M027R7;LINKAGE=D

[30] Using preliminary Crystal Barrel data. NODE=M027R10;LINKAGE=D

[31] Assuming that the $\eta(1405)$ decays are saturated by the $\pi\pi\eta$, $K\overline{K}\pi$ and $\rho\rho$ modes. NODE=M027R13;LINKAGE=AM

[32] Statistical error only. NODE=M027R;LINKAGE=K3

[33] Calculated by us from B($J/\psi \rightarrow \eta(1405)\gamma \rightarrow \phi\gamma\gamma$) < 0.82×10^{-4} and B($J/\psi \rightarrow \eta(1405)\gamma \rightarrow \rho^0\gamma\gamma$) = $(1.07\pm0.17\pm0.11)\times10^{-4}$. NODE=M027R14;LINKAGE=BA

$\eta(1405)$ REFERENCES

NODE=M027

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AHOHE	05	PR D71 072001	R. Ahohe *et al.*	(CLEO Collab.)	REFID=50764
AMSLER	04B	EPJ C33 23	C. Amsler *et al.*	(Crystal Barrel Collab.)	REFID=51079
BAI	04J	PL B594 47	J.Z. Bai *et al.*	(BES Collab.)	REFID=50167
NICHITIU	02	PL B545 261	F. Nichitiu *et al.*	(OBELIX Collab.)	REFID=48848
ACCIARRI	01G	PL B501 1	M. Acciarri *et al.*	(L3 Collab.)	REFID=48319
ADAMS	01B	PL B516 264	G.S. Adams *et al.*	(BNL E852 Collab.)	REFID=49649
ANISOVICH	01	NP A690 567	A.V. Anisovich *et al.*		REFID=48308
MANAK	00A	PR D62 012003	J.J. Manak *et al.*	(BNL E852 Collab.)	REFID=47989
ANISOVICH	99I	PL B468 304	A.V. Anisovich *et al.*		REFID=47402
BAI	99	PL B446 356	J.Z. Bai *et al.*	(BES Collab.)	REFID=46606
CICALO	99	PL B462 453	C. Cicalo *et al.*	(OBELIX Collab.)	REFID=47394
ABELE	98E	NP B514 45	A. Abele *et al.*	(Crystal Barrel Collab.)	REFID=46314
BAI	98C	PL B440 217	J.Z. Bai *et al.*	(BES Collab.)	REFID=46337
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BUGG	95	PL B353 378	D.V. Bugg *et al.*	(LOQM, PNPI, WASH)	REFID=44438
AUGUSTIN	92	PR D46 1951	J.E. Augustin, G. Cosme	(DM2 Collab.)	REFID=41584
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BISELLO	89B	PR D39 701	G. Busetto *et al.*	(DM2 Collab.)	REFID=40575
DUCH	89	ZPHY C45 223	K.D. Duch *et al.*	(ASTERIX Collab.) JP	REFID=41016
RATH	89	PR D40 693	M.G. Rath *et al.*	(NDAM, BRAN, BNL, CUNY+)	REFID=40924
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