$J/\psi(1S)$ – THIS IS PART 1 OF 2

To reduce the size of this section's PostScript file, we have divided it into two PostScript files. We present the following index:

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PART 2

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$J/\psi(1S)$

$I^G(J^{PC}) = 0^-(1^{--})$

$J/\psi(1S)$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
3096.88±0.04 OUR AVERAGE					
3096.87±0.03±0.03		ARMSTRONG	93B	E760	$\overline{p}p \rightarrow e^+e^-$
3096.95±0.1 ±0.3	193	BAGLIN	87	SPEC	$\overline{p}p \rightarrow e^+e^-X$
3096.93±0.09	502	ZHOLENTZ	80	REDE	e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
3097.5 ±0.3		GRIBUSHIN	96	FMPS	515 π^- Be $\rightarrow 2\mu X$
3098.4 ±2.0	38k	LEMOIGNE	82	GOLI	190 π^- Be $\rightarrow 2\mu$
3097.0 ±1		[1] BRANDELIK	79C	DASP	e^+e^-

[1] From a simultaneous fit to e^+e^-, $\mu^+\mu^-$ and hadronic channels assuming $\Gamma(e^+e^-) = \Gamma(\mu^+\mu^-)$.

$J/\psi(1S)$ WIDTH

VALUE (keV)	*DOCUMENT ID*		*TECN*	*COMMENT*
87 ± 5 OUR AVERAGE				
84.4± 8.9	BAI	95B	BES	e^+e^-
99 ±12 ±6	ARMSTRONG	93B	E760	$\overline{p}p \rightarrow e^+e^-$
$85.5^{+\ 6.1}_{-\ 5.8}$	[2] HSUEH	92	RVUE	See Υ mini-review

[2] Using data from COFFMAN 92, BALDINI-CELIO 75, BOYARSKI 75, ESPOSITO 75B, BRANDELIK 79C.

$J/\psi(1S)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)	Scale factor/ Confidence level
Γ_1	hadrons	(87.7 ±0.5) %	
Γ_2	virtual$\gamma \rightarrow$ hadrons	(17.0 ±2.0) %	
Γ_3	e^+e^-	(6.02±0.19) %	
Γ_4	$\mu^+\mu^-$	(6.01±0.19) %	

Decays involving hadronic resonances

Γ_5	$\rho\pi$		(1.27±0.09) %	
Γ_6	$\rho^0\pi^0$		(4.2 ±0.5) × 10^{-3}	
Γ_7	$a_2(1320)\rho$		(1.09±0.22) %	
Γ_8	$\omega\pi^+\pi^+\pi^-\pi^-$		(8.5 ±3.4) × 10^{-3}	
Γ_9	$\omega\pi^+\pi^-$		(7.2 ±1.0) × 10^{-3}	
Γ_{10}	$\omega f_2(1270)$		(4.3 ±0.6) × 10^{-3}	
Γ_{11}	$K^*(892)^0\overline{K}_2^*(1430)^0$ + c.c.		(6.7 ±2.6) × 10^{-3}	
Γ_{12}	$\omega K^*(892)\overline{K}$ + c.c.		(5.3 ±2.0) × 10^{-3}	
Γ_{13}	$K^+\overline{K}^*(892)^-$ + c.c.		(5.0 ±0.4) × 10^{-3}	
Γ_{14}	$K^0\overline{K}^*(892)^0$ + c.c.		(4.2 ±0.4) × 10^{-3}	
Γ_{15}	$\omega\pi^0\pi^0$		(3.4 ±0.8) × 10^{-3}	
Γ_{16}	$b_1(1235)^\pm\pi^\mp$	[a]	(3.0 ±0.5) × 10^{-3}	
Γ_{17}	$\omega K^\pm K_S^0\pi^\mp$	[a]	(3.0 ±0.7) × 10^{-3}	
Γ_{18}	$b_1(1235)^0\pi^0$		(2.3 ±0.6) × 10^{-3}	
Γ_{19}	$\phi K^*(892)\overline{K}$ + c.c.		(2.04±0.28) × 10^{-3}	
Γ_{20}	$\omega K\overline{K}$		(1.9 ±0.4) × 10^{-3}	
Γ_{21}	$\omega f_J(1710) \rightarrow \omega K\overline{K}$		(4.8 ±1.1) × 10^{-4}	
Γ_{22}	$\phi 2(\pi^+\pi^-)$		(1.60±0.32) × 10^{-3}	
Γ_{23}	$\Delta(1232)^{++}\overline{p}\pi^-$		(1.6 ±0.5) × 10^{-3}	
Γ_{24}	$\omega\eta$		(1.58±0.16) × 10^{-3}	
Γ_{25}	$\phi K\overline{K}$		(1.48±0.22) × 10^{-3}	
Γ_{26}	$\phi f_J(1710) \rightarrow \phi K\overline{K}$		(3.6 ±0.6) × 10^{-4}	
Γ_{27}	$p\overline{p}\omega$		(1.30±0.25) × 10^{-3}	S=1.3
Γ_{28}	$\Delta(1232)^{++}\overline{\Delta}(1232)^{--}$		(1.10±0.29) × 10^{-3}	
Γ_{29}	$\Sigma(1385)^-\overline{\Sigma}(1385)^+$ (or c.c.)	[a]	(1.03±0.13) × 10^{-3}	
Γ_{30}	$p\overline{p}\eta'(958)$		(9 ±4) × 10^{-4}	S=1.7
Γ_{31}	$\phi f_2'(1525)$		(8 ±4) × 10^{-4}	S=2.7
Γ_{32}	$\phi\pi^+\pi^-$		(8.0 ±1.2) × 10^{-4}	
Γ_{33}	$\phi K^\pm K_S^0\pi^\mp$	[a]	(7.2 ±0.9) × 10^{-4}	
Γ_{34}	$\omega f_1(1420)$		(6.8 ±2.4) × 10^{-4}	
Γ_{35}	$\phi\eta$		(6.5 ±0.7) × 10^{-4}	
Γ_{36}	$\Xi(1530)^-\overline{\Xi}^+$		(5.9 ±1.5) × 10^{-4}	
Γ_{37}	$pK^-\overline{\Sigma}(1385)^0$		(5.1 ±3.2) × 10^{-4}	
Γ_{38}	$\omega\pi^0$		(4.2 ±0.6) × 10^{-4}	S=1.4
Γ_{39}	$\phi\eta'(958)$		(3.3 ±0.4) × 10^{-4}	
Γ_{40}	$\phi f_0(980)$		(3.2 ±0.9) × 10^{-4}	S=1.9
Γ_{41}	$\Xi(1530)^0\overline{\Xi}^0$		(3.2 ±1.4) × 10^{-4}	
Γ_{42}	$\Sigma(1385)^-\overline{\Sigma}^+$ (or c.c.)	[a]	(3.1 ±0.5) × 10^{-4}	
Γ_{43}	$\phi f_1(1285)$		(2.6 ±0.5) × 10^{-4}	S=1.1
Γ_{44}	$\rho\eta$		(1.93±0.23) × 10^{-4}	
Γ_{45}	$\omega\eta'(958)$		(1.67±0.25) × 10^{-4}	

Γ_{46}	$\omega f_0(980)$		(1.4 ±0.5)	$\times 10^{-4}$	
Γ_{47}	$\rho\eta'(958)$		(1.05±0.18)	$\times 10^{-4}$	
Γ_{48}	$p\overline{p}\phi$		(4.5 ±1.5)	$\times 10^{-5}$	
Γ_{49}	$a_2(1320)^{\pm}\pi^{\mp}$	[a]	< 4.3	$\times 10^{-3}$	CL=90%
Γ_{50}	$K\overline{K}_2^*(1430)+$ c.c.		< 4.0	$\times 10^{-3}$	CL=90%
Γ_{51}	$K_2^*(1430)^0\overline{K}_2^*(1430)^0$		< 2.9	$\times 10^{-3}$	CL=90%
Γ_{52}	$K^*(892)^0\overline{K}^*(892)^0$		< 5	$\times 10^{-4}$	CL=90%
Γ_{53}	$\phi f_2(1270)$		< 3.7	$\times 10^{-4}$	CL=90%
Γ_{54}	$p\overline{p}\rho$		< 3.1	$\times 10^{-4}$	CL=90%
Γ_{55}	$\phi\eta(1440) \rightarrow \phi\eta\pi\pi$		< 2.5	$\times 10^{-4}$	CL=90%
Γ_{56}	$\omega f_2'(1525)$		< 2.2	$\times 10^{-4}$	CL=90%
Γ_{57}	$\Sigma(1385)^0\overline{\Lambda}$		< 2	$\times 10^{-4}$	CL=90%
Γ_{58}	$\Delta(1232)^+\overline{p}$		< 1	$\times 10^{-4}$	CL=90%
Γ_{59}	$\Sigma^0\overline{\Lambda}$		< 9	$\times 10^{-5}$	CL=90%
Γ_{60}	$\phi\pi^0$		< 6.8	$\times 10^{-6}$	CL=90%

Decays into stable hadrons

Γ_{61}	$2(\pi^+\pi^-)\pi^0$		(3.37±0.26) %		
Γ_{62}	$3(\pi^+\pi^-)\pi^0$		(2.9 ±0.6) %		
Γ_{63}	$\pi^+\pi^-\pi^0$		(1.50±0.20) %		
Γ_{64}	$\pi^+\pi^-\pi^0 K^+K^-$		(1.20±0.30) %		
Γ_{65}	$4(\pi^+\pi^-)\pi^0$		(9.0 ±3.0)	$\times 10^{-3}$	
Γ_{66}	$\pi^+\pi^- K^+K^-$		(7.2 ±2.3)	$\times 10^{-3}$	
Γ_{67}	$K\overline{K}\pi$		(6.1 ±1.0)	$\times 10^{-3}$	
Γ_{68}	$p\overline{p}\pi^+\pi^-$		(6.0 ±0.5)	$\times 10^{-3}$	S=1.3
Γ_{69}	$2(\pi^+\pi^-)$		(4.0 ±1.0)	$\times 10^{-3}$	
Γ_{70}	$3(\pi^+\pi^-)$		(4.0 ±2.0)	$\times 10^{-3}$	
Γ_{71}	$n\overline{n}\pi^+\pi^-$		(4 ±4)	$\times 10^{-3}$	
Γ_{72}	$\Sigma^0\overline{\Sigma}^0$		(1.27±0.17)	$\times 10^{-3}$	
Γ_{73}	$2(\pi^+\pi^-)K^+K^-$		(3.1 ±1.3)	$\times 10^{-3}$	
Γ_{74}	$p\overline{p}\pi^+\pi^-\pi^0$	[b]	(2.3 ±0.9)	$\times 10^{-3}$	S=1.9
Γ_{75}	$p\overline{p}$		(2.14±0.10)	$\times 10^{-3}$	
Γ_{76}	$p\overline{p}\eta$		(2.09±0.18)	$\times 10^{-3}$	
Γ_{77}	$p\overline{n}\pi^-$		(2.00±0.10)	$\times 10^{-3}$	
Γ_{78}	$n\overline{n}$		(1.9 ±0.5)	$\times 10^{-3}$	
Γ_{79}	$\Xi\overline{\Xi}$		(1.8 ±0.4)	$\times 10^{-3}$	S=1.8
Γ_{80}	$\Lambda\overline{\Lambda}$		(1.35±0.14)	$\times 10^{-3}$	S=1.2
Γ_{81}	$p\overline{p}\pi^0$		(1.09±0.09)	$\times 10^{-3}$	
Γ_{82}	$\Lambda\overline{\Sigma}^-\pi^+$ (or c.c.)	[a]	(1.06±0.12)	$\times 10^{-3}$	
Γ_{83}	$pK^-\overline{\Lambda}$		(8.9 ±1.6)	$\times 10^{-4}$	
Γ_{84}	$2(K^+K^-)$		(7.0 ±3.0)	$\times 10^{-4}$	

Γ_{85}	$pK^-\overline{\Sigma}^0$		$(\ 2.9\ \pm 0.8\ ) \times 10^{-4}$		
Γ_{86}	K^+K^-		$(\ 2.37 \pm 0.31) \times 10^{-4}$		
Γ_{87}	$\Lambda\overline{\Lambda}\pi^0$		$(\ 2.2\ \pm 0.7\ ) \times 10^{-4}$		
Γ_{88}	$\pi^+\pi^-$		$(\ 1.47 \pm 0.23) \times 10^{-4}$		
Γ_{89}	$K^0_S K^0_L$		$(\ 1.08 \pm 0.14) \times 10^{-4}$		
Γ_{90}	$\Lambda\overline{\Sigma} +$ c.c.		$< 1.5 \times 10^{-4}$		CL=90%
Γ_{91}	$K^0_S K^0_S$		$< 5.2 \times 10^{-6}$		CL=90%

Radiative decays

Γ_{92}	$\gamma\eta_c(1S)$		$(\ 1.3\ \pm 0.4\ )$ %		
Γ_{93}	$\gamma\pi^+\pi^- 2\pi^0$		$(\ 8.3\ \pm 3.1\ ) \times 10^{-3}$		
Γ_{94}	$\gamma\eta\pi\pi$		$(\ 6.1\ \pm 1.0\ ) \times 10^{-3}$		
Γ_{95}	$\gamma\eta(1440) \to \gamma K\overline{K}\pi$	[c]	$(\ 9.1\ \pm 1.8\ ) \times 10^{-4}$		
Γ_{96}	$\gamma\eta(1440) \to \gamma\gamma\rho^0$		$(\ 6.4\ \pm 1.4\ ) \times 10^{-5}$		
Γ_{97}	$\gamma\eta(1440) \to \gamma\eta\pi^+\pi^-$		$(\ 3.4\ \pm 0.7\ ) \times 10^{-4}$		
Γ_{98}	$\gamma\rho\rho$		$(\ 4.5\ \pm 0.8\ ) \times 10^{-3}$		
Γ_{99}	$\gamma\eta'(958)$		$(\ 4.31 \pm 0.30) \times 10^{-3}$		
Γ_{100}	$\gamma 2\pi^+ 2\pi^-$		$(\ 2.8\ \pm 0.5\ ) \times 10^{-3}$		S=1.9
Γ_{101}	$\gamma f_4(2050)$		$(\ 2.7\ \pm 0.7\ ) \times 10^{-3}$		
Γ_{102}	$\gamma\omega\omega$		$(\ 1.59 \pm 0.33) \times 10^{-3}$		
Γ_{103}	$\gamma\eta(1440) \to \gamma\rho^0\rho^0$		$(\ 1.7\ \pm 0.4\ ) \times 10^{-3}$		S=1.3
Γ_{104}	$\gamma f_2(1270)$		$(\ 1.38 \pm 0.14) \times 10^{-3}$		
Γ_{105}	$\gamma f_J(1710) \to \gamma K\overline{K}$		$(\ 8.5\ {}^{+1.2}_{-0.9}\ ) \times 10^{-4}$		S=1.2
Γ_{106}	$\gamma\eta$		$(\ 8.6\ \pm 0.8\ ) \times 10^{-4}$		
Γ_{107}	$\gamma f_1(1420) \to \gamma K\overline{K}\pi$		$(\ 8.3\ \pm 1.5\ ) \times 10^{-4}$		
Γ_{108}	$\gamma f_1(1285)$		$(\ 6.5\ \pm 1.0\ ) \times 10^{-4}$		
Γ_{109}	$\gamma f'_2(1525)$		$(\ 4.7\ {}^{+0.7}_{-0.5}\ ) \times 10^{-4}$		
Γ_{110}	$\gamma\phi\phi$		$(\ 4.0\ \pm 1.2\ ) \times 10^{-4}$		S=2.1
Γ_{111}	$\gamma p\overline{p}$		$(\ 3.8\ \pm 1.0\ ) \times 10^{-4}$		
Γ_{112}	$\gamma\eta(2225)$		$(\ 2.9\ \pm 0.6\ ) \times 10^{-4}$		
Γ_{113}	$\gamma\eta(1760) \to \gamma\rho^0\rho^0$		$(\ 1.3\ \pm 0.9\ ) \times 10^{-4}$		
Γ_{114}	$\gamma\pi^0$		$(\ 3.9\ \pm 1.3\ ) \times 10^{-5}$		
Γ_{115}	$\gamma p\overline{p}\pi^+\pi^-$		$< 7.9 \times 10^{-4}$		CL=90%
Γ_{116}	$\gamma\gamma$		$< 5 \times 10^{-4}$		CL=90%
Γ_{117}	$\gamma\Lambda\overline{\Lambda}$		$< 1.3 \times 10^{-4}$		CL=90%
Γ_{118}	3γ		$< 5.5 \times 10^{-5}$		CL=90%
Γ_{119}	$\gamma f_0(2200)$				
Γ_{120}	$\gamma f_J(2220)$		$> 2.50 \times 10^{-3}$		CL=99.9%
Γ_{121}	$\gamma f_0(1500)$		$(\ 5.7\ \pm 0.8\ ) \times 10^{-4}$		
Γ_{122}	$\gamma e^+ e^-$		$(\ 8.8\ \pm 1.4\ ) \times 10^{-3}$		

[*a*] The value is for the sum of the charge states of particle/antiparticle states indicated.

[*b*] Includes $p\overline{p}\pi^+\pi^-\gamma$ and excludes $p\overline{p}\eta$, $p\overline{p}\omega$, $p\overline{p}\eta'$.

[*c*] See the "Note on the $\eta(1440)$" in the $\eta(1440)$ Particle Listings.

$J/\psi(1S)$ PARTIAL WIDTHS

Γ(hadrons) Γ_1

VALUE (keV)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
74.1± 8.1	BAI	95B	BES	e^+e^-
59 ±24	BALDINI-...	75	FRAG	e^+e^-
59 ±14	BOYARSKI	75	MRK1	e^+e^-
50 ±25	ESPOSITO	75B	FRAM	e^+e^-

Γ(virtual $\gamma \rightarrow$ hadrons) Γ_2

VALUE (keV)	*DOCUMENT ID*		*TECN*	*COMMENT*
12 ±2	[3] BOYARSKI	75	MRK1	e^+e^-

[3] Included in Γ(hadrons).

$\Gamma(e^+e^-)$ Γ_3

VALUE (keV)	*DOCUMENT ID*		*TECN*	*COMMENT*
5.26±0.37 OUR EVALUATION				
• • • We do not use the following data for averages, fits, limits, etc. • • •				
5.14±0.39	BAI	95B	BES	e^+e^-
$5.36^{+0.29}_{-0.28}$	[4] HSUEH	92	RVUE	See Υ mini-review
4.72±0.35	ALEXANDER	89	RVUE	See Υ mini-review
4.4 ±0.6	[4] BRANDELIK	79C	DASP	e^+e^-
4.6 ±0.8	[5] BALDINI-...	75	FRAG	e^+e^-
4.8 ±0.6	BOYARSKI	75	MRK1	e^+e^-
4.6 ±1.0	ESPOSITO	75B	FRAM	e^+e^-

[4] From a simultaneous fit to e^+e^-, $\mu^+\mu^-$, and hadronic channels assuming $\Gamma(e^+e^-) = \Gamma(\mu^+\mu^-)$.

[5] Assuming equal partial widths for e^+e^- and $\mu^+\mu^-$.

$\Gamma(\mu^+\mu^-)$ Γ_4

VALUE (keV)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
5.13±0.52	BAI	95B	BES	e^+e^-
4.8 ±0.6	BOYARSKI	75	MRK1	e^+e^-
5 ±1	ESPOSITO	75B	FRAM	e^+e^-

$\Gamma(\gamma\gamma)$ Γ_{116}

VALUE (eV)	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<5.4	90	BRANDELIK	79C	DASP	e^+e^-

$J/\psi(1S)$ $\Gamma(i)\Gamma(e^+e^-)/\Gamma(total)$

This combination of a partial width with the partial width into e^+e^- and with the total width is obtained from the integrated cross section into channel$_i$ in the e^+e^- annihilation.

$\Gamma(\text{hadrons}) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ $\Gamma_1\Gamma_3/\Gamma$

VALUE (keV)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
4 ±0.8	[6] BALDINI-...	75	FRAG	e^+e^-
3.9±0.8	[6] ESPOSITO	75B	FRAM	e^+e^-

$\Gamma(e^+e^-) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ $\Gamma_3\Gamma_3/\Gamma$

VALUE (keV)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.35±0.02	BRANDELIK	79C	DASP	e^+e^-
0.32±0.07	[6] BALDINI-...	75	FRAG	e^+e^-
0.34±0.09	[6] ESPOSITO	75B	FRAM	e^+e^-
0.36±0.10	[6] FORD	75	SPEC	e^+e^-

$\Gamma(\mu^+\mu^-) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ $\Gamma_4\Gamma_3/\Gamma$

VALUE (keV)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.51±0.09	DASP	75	DASP	e^+e^-
0.38±0.05	[6] ESPOSITO	75B	FRAM	e^+e^-

$\Gamma(p\bar{p}) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ $\Gamma_{75}\Gamma_3/\Gamma$

VALUE (eV)	*DOCUMENT ID*		*TECN*	*COMMENT*
9.7±1.7	[7] ARMSTRONG	93B	E760	$\overline{p}p \rightarrow e^+e^-$

[6] Data redundant with branching ratios or partial widths above.
[7] Using $\Gamma_{\text{total}} = 85.5^{+6.1}_{-5.8}$ MeV.

$J/\psi(1S)$ BRANCHING RATIOS

For the first four branching ratios, see also the partial widths, and (partial widths) $\times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ above.

$\Gamma(\text{hadrons})/\Gamma_{\text{total}}$ Γ_1/Γ

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.877±0.005 OUR AVERAGE				
0.878±0.005	BAI	95B	BES	e^+e^-
0.86 ±0.02	BOYARSKI	75	MRK1	e^+e^-

$\Gamma(\text{virtual}\,\gamma \rightarrow \text{hadrons})/\Gamma_{\text{total}}$ Γ_2/Γ

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
0.17 ±0.02	[8] BOYARSKI	75	MRK1	e^+e^-

[8] Included in $\Gamma(\text{hadrons})/\Gamma_{\text{total}}$.

$\Gamma(e^+e^-)/\Gamma_{total}$ Γ_3/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.0602±0.0019 OUR AVERAGE				
0.0609±0.0033	BAI	95B	BES	e^+e^-
0.0592±0.0015±0.0020	COFFMAN	92	MRK3	$\psi(2S) \rightarrow J/\psi\pi^+\pi^-$
0.069 ±0.009	BOYARSKI	75	MRK1	e^+e^-

$\Gamma(\mu^+\mu^-)/\Gamma_{total}$ Γ_4/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.0601±0.0019 OUR AVERAGE				
0.0608±0.0033	BAI	95B	BES	e^+e^-
0.0590±0.0015±0.0019	COFFMAN	92	MRK3	$\psi(2S) \rightarrow J/\psi\pi^+\pi^-$
0.069 ±0.009	BOYARSKI	75	MRK1	e^+e^-

$\Gamma(e^+e^-)/\Gamma(\mu^+\mu^-)$ Γ_3/Γ_4

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1.00±0.07	BAI	95B	BES	e^+e^-
1.00±0.05	BOYARSKI	75	MRK1	e^+e^-
0.91±0.15	ESPOSITO	75B	FRAM	e^+e^-
0.93±0.10	FORD	75	SPEC	e^+e^-

HADRONIC DECAYS

$\Gamma(\rho\pi)/\Gamma_{total}$ Γ_5/Γ

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.0127±0.0009 OUR AVERAGE					
0.0121±0.0020		BAI	96D	BES	$e^+e^- \rightarrow \rho\pi$
0.0142±0.0001±0.0019		COFFMAN	88	MRK3	e^+e^-
0.013 ±0.003	150	FRANKLIN	83	MRK2	e^+e^-
0.016 ±0.004	183	ALEXANDER	78	PLUT	e^+e^-
0.0133±0.0021		BRANDELIK	78B	DASP	e^+e^-
0.010 ±0.002	543	BARTEL	76	CNTR	e^+e^-
0.013 ±0.003	153	JEAN-MARIE	76	MRK1	e^+e^-

$\Gamma(\rho^0\pi^0)/\Gamma(\rho\pi)$ Γ_6/Γ_5

VALUE	DOCUMENT ID		TECN	COMMENT
0.328±0.005±0.027	COFFMAN	88	MRK3	e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.35 ±0.08	ALEXANDER	78	PLUT	e^+e^-
0.32 ±0.08	BRANDELIK	78B	DASP	e^+e^-
0.39 ±0.11	BARTEL	76	CNTR	e^+e^-
0.37 ±0.09	JEAN-MARIE	76	MRK1	e^+e^-

$\Gamma(a_2(1320)\rho)/\Gamma_{total}$ Γ_7/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
10.9±2.2 OUR AVERAGE					
11.7±0.7±2.5	7584	AUGUSTIN	89	DM2	$J/\psi \rightarrow \rho^0\rho^\pm\pi^\mp$
8.4±4.5	36	VANNUCCI	77	MRK1	$e^+e^- \rightarrow 2(\pi^+\pi^-)\pi^0$

$\Gamma(\omega\pi^+\pi^+\pi^-\pi^-)/\Gamma_{total}$ Γ_8/Γ

VALUE (units 10^{-4})	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
85±34	140	VANNUCCI	77	MRK1	$e^+e^- \to 3(\pi^+\pi^-)\pi^0$

$\Gamma(\omega\pi^+\pi^-)/\Gamma_{total}$ Γ_9/Γ

VALUE (units 10^{-3})	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
7.2±1.0 OUR AVERAGE					
7.0±1.6	18058	AUGUSTIN	89	DM2	$J/\psi \to 2(\pi^+\pi^-)\pi^0$
7.8±1.6	215	BURMESTER	77D	PLUT	e^+e^-
6.8±1.9	348	VANNUCCI	77	MRK1	$e^+e^- \to 2(\pi^+\pi^-)\pi^0$

$\Gamma(\omega\pi^+\pi^-)/\Gamma(2(\pi^+\pi^-)\pi^0)$ Γ_9/Γ_{61}

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.3	[9] JEAN-MARIE	76	MRK1	e^+e^-

[9] Final state $(\pi^+\pi^-)\pi^0$ under the assumption that $\pi\pi$ is isospin 0.

$\Gamma(K^*(892)^0\overline{K}{}^*_2(1430)^0 + \text{c.c.})/\Gamma_{total}$ Γ_{11}/Γ

VALUE (units 10^{-4})	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
67±26	40	VANNUCCI	77	MRK1	$e^+e^- \to \pi^+\pi^- K^+K^-$

$\Gamma(\omega K^*(892)\overline{K} + \text{c.c.})/\Gamma_{total}$ Γ_{12}/Γ

VALUE (units 10^{-4})	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
53±14±14	530± 140	BECKER	87	MRK3	$e^+e^- \to$ hadrons

$\Gamma(\omega f_2(1270))/\Gamma_{total}$ Γ_{10}/Γ

VALUE (units 10^{-3})	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
4.3±0.6 OUR AVERAGE					
4.3±0.2±0.6	5860	AUGUSTIN	89	DM2	e^+e^-
4.0±1.6	70	BURMESTER	77D	PLUT	e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1.9±0.8	81	VANNUCCI	77	MRK1	$e^+e^- \to 2(\pi^+\pi^-)\pi^0$

$\Gamma(K^+\overline{K}{}^*(892)^- + \text{c.c.})/\Gamma_{total}$ Γ_{13}/Γ

VALUE (units 10^{-3})	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
5.0 ±0.4 OUR AVERAGE					
4.57±0.17±0.70	2285	JOUSSET	90	DM2	$J/\psi \to$ hadrons
5.26±0.13±0.53		COFFMAN	88	MRK3	$J/\psi \to K^\pm K^0_S \pi^\mp$, $K^+K^-\pi^0$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2.6 ±0.6	24	FRANKLIN	83	MRK2	$J/\psi \to K^+K^-\pi^0$
3.2 ±0.6	48	VANNUCCI	77	MRK1	$J/\psi \to K^\pm K^0_S \pi^\mp$
4.1 ±1.2	39	BRAUNSCH...	76	DASP	$J/\psi \to K^\pm X$

$\Gamma(K^0\overline{K}^*(892)^0 + \text{c.c.})/\Gamma_{\text{total}}$ Γ_{14}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
4.2 ±0.4 OUR AVERAGE					
3.96±0.15±0.60	1192	JOUSSET	90	DM2	$J/\psi \to$ hadrons
4.33±0.12±0.45		COFFMAN	88	MRK3	$J/\psi \to K^\pm K^0_S \pi^\mp$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2.7 ±0.6	45	VANNUCCI	77	MRK1	$J/\psi \to K^\pm K^0_S \pi^\mp$

$\Gamma(K^0\overline{K}^*(892)^0 + \text{c.c.})/\Gamma(K^+\overline{K}^*(892)^- + \text{c.c.})$ Γ_{14}/Γ_{13}

VALUE	DOCUMENT ID		TECN	COMMENT
0.82±0.05±0.09	COFFMAN	88	MRK3	$J/\psi \to K\overline{K}^*(892)+\text{c.c.}$

$\Gamma(\omega\pi^0\pi^0)/\Gamma_{\text{total}}$ Γ_{15}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
3.4±0.3±0.7	509	AUGUSTIN	89	DM2	$J/\psi \to \pi^+\pi^- 3\pi^0$

$\Gamma(b_1(1235)^\pm\pi^\mp)/\Gamma_{\text{total}}$ Γ_{16}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
30±5 OUR AVERAGE					
31±6	4600	AUGUSTIN	89	DM2	$J/\psi \to 2(\pi^+\pi^-)\pi^0$
29±7	87	BURMESTER	77D	PLUT	e^+e^-

$\Gamma(\omega K^\pm K^0_S \pi^\mp)/\Gamma_{\text{total}}$ Γ_{17}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
29.5±1.4±7.0	879± 41	BECKER	87	MRK3	$e^+e^- \to$ hadrons

$\Gamma(b_1(1235)^0\pi^0)/\Gamma_{\text{total}}$ Γ_{18}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
23±3±5	229	AUGUSTIN	89	DM2	e^+e^-

$\Gamma(\phi K^*(892)\overline{K} + \text{c.c.})/\Gamma_{\text{total}}$ Γ_{19}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
20.4±2.8 OUR AVERAGE					
20.7±2.4±3.0		FALVARD	88	DM2	$J/\psi \to$ hadrons
20 ±3 ±3	155± 20	BECKER	87	MRK3	$e^+e^- \to$ hadrons

$\Gamma(\omega K\overline{K})/\Gamma_{\text{total}}$ Γ_{20}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
19 ± 4 OUR AVERAGE					
19.8± 2.1±3.9		[10] FALVARD	88	DM2	$J/\psi \to$ hadrons
16 ±10	22	FELDMAN	77	MRK1	e^+e^-

[10] Addition of ωK^+K^- and $\omega K^0\overline{K}^0$ branching ratios.

$\Gamma(\omega f_J(1710) \to \omega K\overline{K})/\Gamma_{total}$ Γ_{21}/Γ

VALUE (units 10^{-4})		DOCUMENT ID		TECN	COMMENT
4.8±1.1±0.3	[11,12]	FALVARD	88	DM2	$J/\psi \to$ hadrons

[11] Includes unknown branching fraction $f_J(1710) \to K\overline{K}$.
[12] Addition of $f_J(1710) \to K^+K^-$ and $f_J(1710) \to K^0\overline{K}^0$ branching ratios.

$\Gamma(\phi 2(\pi^+\pi^-))/\Gamma_{total}$ Γ_{22}/Γ

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
16.0±1.0±3.0	FALVARD	88	DM2	$J/\psi \to$ hadrons

$\Gamma(\Delta(1232)^{++}\overline{p}\pi^-)/\Gamma_{total}$ Γ_{23}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
1.58±0.23±0.40	332	EATON	84	MRK2	e^+e^-

$\Gamma(\omega\eta)/\Gamma_{total}$ Γ_{24}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
1.58±0.16 OUR AVERAGE					
1.43±0.10±0.21	378	JOUSSET	90	DM2	$J/\psi \to$ hadrons
1.71±0.08±0.20		COFFMAN	88	MRK3	$e^+e^- \to 3\pi\eta$

$\Gamma(\phi K\overline{K})/\Gamma_{total}$ Γ_{25}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
14.8±2.2 OUR AVERAGE					
14.6±0.8±2.1		[13] FALVARD	88	DM2	$J/\psi \to$ hadrons
18 ±8	14	FELDMAN	77	MRK1	e^+e^-

[13] Addition of ϕK^+K^- and $\phi K^0\overline{K}^0$ branching ratios.

$\Gamma(\phi f_J(1710) \to \phi K\overline{K})/\Gamma_{total}$ Γ_{26}/Γ

VALUE (units 10^{-4})		DOCUMENT ID		TECN	COMMENT
3.6±0.2±0.6	[14,15]	FALVARD	88	DM2	$J/\psi \to$ hadrons

[14] Including interference with $f_2'(1525)$.
[15] Includes unknown branching fraction $f_J(1710) \to K\overline{K}$.

$\Gamma(p\overline{p}\omega)/\Gamma_{total}$ Γ_{27}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
1.30±0.25 OUR AVERAGE Error includes scale factor of 1.3.					
1.10±0.17±0.18	486	EATON	84	MRK2	e^+e^-
1.6 ±0.3	77	PERUZZI	78	MRK1	e^+e^-

$\Gamma(\Delta(1232)^{++}\overline{\Delta}(1232)^{--})/\Gamma_{total}$ Γ_{28}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
1.10±0.09±0.28	233	EATON	84	MRK2	e^+e^-

$\Gamma(\Sigma(1385)^-\overline{\Sigma}(1385)^+ (\text{or c.c.}))/\Gamma_{\text{total}}$ Γ_{29}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
1.03±0.13 OUR AVERAGE					
1.00±0.04±0.21	631±25	HENRARD	87	DM2	$e^+e^- \to \Sigma^{*-}$
1.19±0.04±0.25	754±27	HENRARD	87	DM2	$e^+e^- \to \Sigma^{*+}$
0.86±0.18±0.22	56	EATON	84	MRK2	$e^+e^- \to \Sigma^{*-}$
1.03±0.24±0.25	68	EATON	84	MRK2	$e^+e^- \to \Sigma^{*+}$

$\Gamma(p\overline{p}\eta'(958))/\Gamma_{\text{total}}$ Γ_{30}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.9 ±0.4 OUR AVERAGE Error includes scale factor of 1.7.					
0.68±0.23±0.17	19	EATON	84	MRK2	e^+e^-
1.8 ±0.6	19	PERUZZI	78	MRK1	e^+e^-

$\Gamma(\phi f_2'(1525))/\Gamma_{\text{total}}$ Γ_{31}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
8 ±4 OUR AVERAGE Error includes scale factor of 2.7.					
12.3±0.6±2.0		[16,17] FALVARD	88	DM2	$J/\psi \to$ hadrons
4.8±1.8	46	[16] GIDAL	81	MRK2	$J/\psi \to K^+K^-K^+K^-$

[16] Re-evaluated using B($f_2'(1525) \to K\overline{K}$) = 0.713.

[17] Including interference with $f_J(1710)$.

$\Gamma(\phi\pi^+\pi^-)/\Gamma_{\text{total}}$ Γ_{32}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.80±0.12 OUR AVERAGE					
0.78±0.03±0.12		FALVARD	88	DM2	$J/\psi \to$ hadrons
2.1 ±0.9	23	FELDMAN	77	MRK1	e^+e^-

$\Gamma(\phi K^\pm K_S^0\pi^\mp)/\Gamma_{\text{total}}$ Γ_{33}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
7.2±0.9 OUR AVERAGE					
7.4±0.9±1.1		FALVARD	88	DM2	$J/\psi \to$ hadrons
7 ±0.6±1.0	163±15	BECKER	87	MRK3	$e^+e^- \to$ hadrons

$\Gamma(\omega f_1(1420))/\Gamma_{\text{total}}$ Γ_{34}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
$\mathbf{6.8^{+1.9}_{-1.6}\pm1.7}$	111^{+31}_{-26}	BECKER	87	MRK3	$e^+e^- \to$ hadrons

$\Gamma(\phi\eta)/\Gamma_{\text{total}}$ Γ_{35}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.65 ±0.07 OUR AVERAGE					
0.64 ±0.04 ±0.11	346	JOUSSET	90	DM2	$J/\psi \to$ hadrons
0.661±0.045±0.078		COFFMAN	88	MRK3	$e^+e^- \to K^+K^-\eta$

$\Gamma(\Xi(1530)^-\overline{\Xi}^+)/\Gamma_{total}$ Γ_{36}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.59±0.09±0.12	75 ± 11	HENRARD	87	DM2	e^+e^-

$\Gamma(pK^-\overline{\Sigma}(1385)^0)/\Gamma_{total}$ Γ_{37}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.51±0.26±0.18	89	EATON	84	MRK2	e^+e^-

$\Gamma(\omega\pi^0)/\Gamma_{total}$ Γ_{38}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.42 ±0.06 OUR AVERAGE	Error includes scale factor of 1.4.				
0.360±0.028±0.054	222	JOUSSET	90	DM2	$J/\psi \rightarrow$ hadrons
0.482±0.019±0.064		COFFMAN	88	MRK3	$e^+e^- \rightarrow \pi^0\pi^+\pi^-\pi^0$

$\Gamma(\phi\eta'(958))/\Gamma_{total}$ Γ_{39}/Γ

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
0.33 ±0.04 OUR AVERAGE						
0.41 ±0.03 ±0.08		167	JOUSSET	90	DM2	$J/\psi \rightarrow$ hadrons
0.308±0.034±0.036			COFFMAN	88	MRK3	$e^+e^- \rightarrow K^+K^-\eta'$
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<1.3	90		VANNUCCI	77	MRK1	e^+e^-

$\Gamma(\phi f_0(980))/\Gamma_{total}$ Γ_{40}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
3.2±0.9 OUR AVERAGE	Error includes scale factor of 1.9.				
4.6±0.4±0.8		[18] FALVARD	88	DM2	$J/\psi \rightarrow$ hadrons
2.6±0.6	50	[18] GIDAL	81	MRK2	$J/\psi \rightarrow K^+K^-K^+K^-$

[18] Assuming B($f_0(980) \rightarrow \pi\pi$) = 0.78.

$\Gamma(\Xi(1530)^0\overline{\Xi}^0)/\Gamma_{total}$ Γ_{41}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.32±0.12±0.07	24 ± 9	HENRARD	87	DM2	e^+e^-

$\Gamma(\Sigma(1385)^-\overline{\Sigma}^+ (\text{or c.c.}))/\Gamma_{total}$ Γ_{42}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.31±0.05 OUR AVERAGE					
0.30±0.03±0.07	74 ± 8	HENRARD	87	DM2	$e^+e^- \rightarrow \Sigma^{*-}$
0.34±0.04±0.07	77 ± 9	HENRARD	87	DM2	$e^+e^- \rightarrow \Sigma^{*+}$
0.29±0.11±0.10	26	EATON	84	MRK2	$e^+e^- \rightarrow \Sigma^{*-}$
0.31±0.11±0.11	28	EATON	84	MRK2	$e^+e^- \rightarrow \Sigma^{*+}$

$\Gamma(\phi f_1(1285))/\Gamma_{total}$ Γ_{43}/Γ

VALUE (units 10^{-4})	EVTS	DOCUMENT ID		TECN	COMMENT
2.6±0.5 OUR AVERAGE Error includes scale factor of 1.1.					
3.2±0.6±0.4		JOUSSET	90	DM2	$J/\psi \to \phi 2(\pi^+\pi^-)$
2.1±0.5±0.4	25	[19] JOUSSET	90	DM2	$J/\psi \to \phi\eta\pi^+\pi^-$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.6±0.2±0.1	16 ± 6	BECKER	87	MRK3	$J/\psi \to \phi K\overline{K}\pi$

[19] We attrribute to the $f_1(1285)$ the signal observed in the $\pi^+\pi^-\eta$ invariant mass distribution at 1297 Mev.

$\Gamma(\rho\eta)/\Gamma_{total}$ Γ_{44}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.193±0.023 OUR AVERAGE					
0.194±0.017±0.029	299	JOUSSET	90	DM2	$J/\psi \to$ hadrons
0.193±0.013±0.029		COFFMAN	88	MRK3	$e^+e^- \to \pi^+\pi^-\eta$

$\Gamma(\omega\eta'(958))/\Gamma_{total}$ Γ_{45}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.167±0.025 OUR AVERAGE					
$0.18\ ^{+0.10}_{-0.08}\ \pm 0.03$	6	JOUSSET	90	DM2	$J/\psi \to$ hadrons
0.166±0.017±0.019		COFFMAN	88	MRK3	$e^+e^- \to 3\pi\eta'$

$\Gamma(\omega f_0(980))/\Gamma_{total}$ Γ_{46}/Γ

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
1.41±0.27±0.47	[20] AUGUSTIN	89	DM2	$J/\psi \to 2(\pi^+\pi^-)\pi^0$

[20] Assuming $B(f_0(980) \to \pi\pi) = 0.78$.

$\Gamma(\rho\eta'(958))/\Gamma_{total}$ Γ_{47}/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
0.105±0.018 OUR AVERAGE					
0.083±0.030±0.012	19	JOUSSET	90	DM2	$J/\psi \to$ hadrons
0.114±0.014±0.016		COFFMAN	88	MRK3	$J/\psi \to \pi^+\pi^-\eta'$

$\Gamma(p\overline{p}\phi)/\Gamma_{total}$ Γ_{48}/Γ

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
0.45±0.13±0.07	FALVARD	88	DM2	$J/\psi \to$ hadrons

$\Gamma(a_2(1320)^\pm\pi^\mp)/\Gamma_{total}$ Γ_{49}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<43	90	BRAUNSCH...	76	DASP	e^+e^-

$\Gamma(K\overline{K}_2^*(1430)+\text{c.c.})/\Gamma_{total}$ Γ_{50}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<40	90	VANNUCCI	77	MRK1	$e^+e^- \to K^0\overline{K}_2^{*0}$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<66	90	BRAUNSCH...	76	DASP	$e^+e^- \to K^\pm\overline{K}_2^{*\mp}$

$\Gamma(K_2^*(1430)^0\overline{K}_2^*(1430)^0)/\Gamma_{total}$ Γ_{51}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<29	90	VANNUCCI	77	MRK1	$e^+e^- \to \pi^+\pi^- K^+K^-$

$\Gamma(K^*(892)^0\overline{K}^*(892)^0)/\Gamma_{total}$ Γ_{52}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<5	90	VANNUCCI	77	MRK1	$e^+e^- \to \pi^+\pi^- K^+K^-$

$\Gamma(\phi f_2(1270))/\Gamma_{total}$ Γ_{53}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<3.7	90	VANNUCCI	77	MRK1	$e^+e^- \to \pi^+\pi^- K^+K^-$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<4.5	90	FALVARD	88	DM2	$J/\psi \to$ hadrons

$\Gamma(p\overline{p}\rho)/\Gamma_{total}$ Γ_{54}/Γ

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<0.31	90	EATON	84	MRK2	$e^+e^- \to$ hadronsγ

$\Gamma(\phi\eta(1440) \to \phi\eta\pi\pi)/\Gamma_{total}$ Γ_{55}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<2.5	90	[21] FALVARD	88	DM2	$J/\psi \to$ hadrons

[21] Includes unknown branching fraction $\eta(1440) \to \eta\pi\pi$.

$\Gamma(\omega f_2'(1525))/\Gamma_{total}$ Γ_{56}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<2.2	90	[22] VANNUCCI	77	MRK1	$e^+e^- \to \pi^+\pi^-\pi^0 K^+K^-$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.8	90	[22] FALVARD	88	DM2	$J/\psi \to$ hadrons

[22] Re-evaluated assuming $B(f_2'(1525) \to K\overline{K}) = 0.713$.

$\Gamma(\Sigma(1385)^0\overline{\Lambda})/\Gamma_{total}$ Γ_{57}/Γ

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<0.2	90	HENRARD	87	DM2	e^+e^-

$\Gamma(\Delta(1232)^+\overline{p})/\Gamma_{total}$ Γ_{58}/Γ

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<0.1	90	HENRARD	87	DM2	e^+e^-

$\Gamma(\Sigma^0\overline{\Lambda})/\Gamma_{total}$ Γ_{59}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<0.9	90	HENRARD	87	DM2	e^+e^-

$\Gamma(\phi\pi^0)/\Gamma_{total}$ Γ_{60}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID	TECN	COMMENT