NODE=M103

$\phi(2170)$

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

See the review on "Spectroscopy of Light Meson Resonances."

NODE=M103

ϕ(2170) MASS

NODE=M103M

NODE=M103M

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
2164 ± 5 OUR AVERAGE					
2164.7 ± 9.1 ± 3.1		[1] ABLIKIM	24AN	BES3	$e^+e^- \to K^0_S K^0_L \pi^0$
2178 ± 20 ± 5		[2] ABLIKIM	23AX	BES3	$e^+e^- \to \phi\pi^+\pi^-$
2190 ± 19 ± 37		[3] ABLIKIM	22L	BES3	2.0–3.08 $e^+e^- \to K^+K^-\pi^0$
2163.5 ± 6.2 ± 3.0		[4] ABLIKIM	21T	BES3	$e^+e^- \to \phi\eta$
2177.5 ± 4.8 ± 19.5		[5] ABLIKIM	20M	BES3	$e^+e^- \to \eta'\phi$
2126.5 ± 16.8 ± 12.4		[6] ABLIKIM	20S	BES3	$e^+e^- \to K^+K^-\pi^0\pi^0$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2215.7 ± 8.3		[7] LICHARD	23	RVUE	$e^+e^- \to \Upsilon(nS) \to \phi\eta\gamma$
2169 ± 5 ± 6		[8] ZHU	23A	RVUE	$e^+e^- \to \eta\phi$
2273.7 ± 5.7 ± 19.3		[9] ABLIKIM	21AP	BES3	$e^+e^- \to K^0_S K^0_L$
2135 ± 8 ± 9	95	ABLIKIM	19I	BES3	$e^+e^- \to \eta\phi f_0(980)$
2239.2 ± 7.1 ± 11.3		[10] ABLIKIM	19L	BES3	$e^+e^- \to K^+K^-$
2200 ± 6 ± 5	471	ABLIKIM	15H	BES3	$J/\psi \to \eta\phi\pi^+\pi^-$
2180 ± 8 ± 8		[11,12] LEES	12F	BABR	10.6 $e^+e^- \to \phi\pi^+\pi^-\gamma$
2079 ± 13 $^{+79}_{-28}$	4.8k	[13] SHEN	09	BELL	10.6 $e^+e^- \to K^+K^-\pi^+\pi^-\gamma$
2186 ± 10 ± 6	52	ABLIKIM	08F	BES	$J/\psi \to \eta\phi f_0(980)$
2125 ± 22 ± 10	483	AUBERT	08S	BABR	10.6 $e^+e^- \to \phi\eta\gamma$
2192 ± 14	116	[14] AUBERT	07AK	BABR	10.6 $e^+e^- \to K^+K^-\pi^+\pi^-\gamma$
2169 ± 20	149	[14] AUBERT	07AK	BABR	10.6 $e^+e^- \to K^+K^-\pi^0\pi^0\gamma$
2175 ± 10 ± 15	201	[12,15] AUBERT,BE	06D	BABR	10.6 $e^+e^- \to K^+K^-\pi\pi\gamma$

OCCUR=2

[1] Seen in $e^+e^- \to K^*(892)^0\overline{K}^0 \to K^0_S K^0_L \pi^0$ with a significance of 3.2σ. NODE=M103M;LINKAGE=N

[2] From a fit to the e^+e^- cross section between 2.00 and 3.08 GeV with a sum of Breit-Wigner amplitude and a non-resonant contribution. NODE=M103M;LINKAGE=J

[3] By a simultaneous fit of the $K_2^*(1430)^+K^-$ and $K^*(892)^+K^-$ intermediate channels in a partial-wave analysis, assuming the same structure, modelled with a coherent sum of a nonresonant component and a resonant component by a Breit-Wigner function. NODE=M103M;LINKAGE=I

[4] From a fit to the cross section below 3.5 GeV measured by BaBar and BESIII with a coherent sum of two modified Breit-Wigner amplitudes (ϕ(1680) and ϕ(2170)) and a nonresonant term. NODE=M103M;LINKAGE=G

[5] From a fit using a coherent sum of a phase-space modified Breit-Wigner function and a phase-space term. NODE=M103M;LINKAGE=D

[6] By a simultaneous fit of the intermediate channels in a partial-wave analysis, assuming the same structure, modelled with a coherent sum of a nonresonant component and a resonant component by a Breit-Wigner function. NODE=M103M;LINKAGE=E

[7] From a VDM fit to ZHU 23 $\eta\phi\gamma$ data with two resonances, ϕ(1680), ϕ(2170), and a third resonance with mass 1850.7 ± 5.3 MeV and width 25 ± 35 MeV of 1.7 σ statistical evidence. NODE=M103M;LINKAGE=K

[8] From the analysis of the combined measurements of $\sigma(e^+e^- \to \eta\phi)$ from BaBar, Belle, BESIII, CMD3. The statistical significance for ϕ(2170) is 7.2 σ. NODE=M103M;LINKAGE=L

[9] From a fit to the cross section between 2.00 and 3.08 GeV with a sum of Breit-Wigner amplitude and a nonresonant contribution. The observed structure can be also due to ρ(2150). NODE=M103M;LINKAGE=H

[10] The observed structure can be due to both the ϕ(2170) and ρ(2150). NODE=M103M;LINKAGE=C

[11] Fit includes interference with the ϕ(1680). NODE=M103M;LINKAGE=A

[12] From the $\phi f_0(980)$ component. NODE=M103M;LINKAGE=AB

[13] From a fit with two incoherent Breit-Wigners. NODE=M103M;LINKAGE=SH

[14] From the $K^+K^- f_0(980)$ component. NODE=M103M;LINKAGE=AU

[15] Superseded by LEES 12F. NODE=M103M;LINKAGE=B

ϕ(2170) WIDTH

NODE=M103W

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
$88\ ^{+26}_{-21}$ OUR AVERAGE				Error includes scale factor of 2.5. See the ideogram below.
$32.4 \pm 21.0 \pm 1.8$		[1] ABLIKIM	24AN BES3	$e^+e^- \rightarrow K^0_S K^0_L \pi^0$
$140 \pm 36 \pm 16$		[2] ABLIKIM	23AX BES3	$e^+e^- \rightarrow \phi\pi^+\pi^-$
$191 \pm 28 \pm 60$		[3] ABLIKIM	22L BES3	2.0–3.08 $e^+e^- \rightarrow K^+K^-\pi^0$
$31.1^{+21.1}_{-11.6} \pm 1.1$		[4] ABLIKIM	21T BES3	$e^+e^- \rightarrow \phi\eta$
$149.0 \pm 15.6 \pm 8.9$		[5] ABLIKIM	20M BES3	$e^+e^- \rightarrow \eta'\phi$
$106.9 \pm 32.1 \pm 28.1$		[6] ABLIKIM	20S BES3	$e^+e^- \rightarrow K^+K^-\pi^0\pi^0$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
35 ± 23		[7] LICHARD	23 RVUE	$e^+e^- \rightarrow \Upsilon(nS) \rightarrow \phi\eta\gamma$
$96\ ^{+17}_{-14} \pm 9$		[8] ZHU	23A RVUE	$e^+e^- \rightarrow \eta\phi$
$86 \pm 44 \pm 51$		[9] ABLIKIM	21AP BES3	$e^+e^- \rightarrow K^0_S K^0_L$
$104 \pm 24 \pm 12$	95	ABLIKIM	19I BES3	$e^+e^- \rightarrow \eta\phi f_0(980)$
$139.8 \pm 12.3 \pm 20.6$		[10] ABLIKIM	19L BES3	$e^+e^- \rightarrow K^+K^-$
$104 \pm 15 \pm 15$	471	ABLIKIM	15H BES3	$J/\psi \rightarrow \eta\phi\pi^+\pi^-$
$77 \pm 15 \pm 10$		[11,12] LEES	12F BABR	10.6 $e^+e^- \rightarrow \phi\pi^+\pi^-\gamma$
$192 \pm 23\ ^{+25}_{-61}$	4.8k	[13] SHEN	09 BELL	10.6 $e^+e^- \rightarrow K^+K^-\pi^+\pi^-\gamma$
$65 \pm 23 \pm 17$	52	ABLIKIM	08F BES	$J/\psi \rightarrow \eta\phi f_0(980)$
$61 \pm 50 \pm 13$	483	AUBERT	08S BABR	10.6 $e^+e^- \rightarrow \phi\eta\gamma$
71 ± 21	116	[14] AUBERT	07AK BABR	10.6 $e^+e^- \rightarrow K^+K^-\pi^+\pi^-\gamma$
102 ± 27	149	[14] AUBERT	07AK BABR	10.6 $e^+e^- \rightarrow K^+K^-\pi^0\pi^0\gamma$
$58 \pm 16 \pm 20$	201	[12,15] AUBERT,BE	06D BABR	10.6 $e^+e^- \rightarrow K^+K^-\pi\pi\gamma$

NODE=M103W

OCCUR=2

[1] Seen in $e^+e^- \rightarrow K^*(892)^0\overline{K}^0 \rightarrow K^0_S K^0_L \pi^0$ with a significance of 3.2σ. NODE=M103W;LINKAGE=N

[2] From a fit to the e^+e^- cross section between 2.00 and 3.08 GeV with a sum of Breit-Wigner amplitude and a non-resonant contribution. NODE=M103W;LINKAGE=J

[3] By a simultaneous fit of the $K^*_2(1430)^+K^-$ and $K^*(892)^+K^-$ intermediate channels in a partial-wave analysis, assuming the same structure, modelled with a coherent sum of a nonresonant component and a resonant component by a Breit-Wigner function. NODE=M103W;LINKAGE=I

[4] From a fit to the cross section below 3.5 GeV measured by BaBar and BESIII with a coherent sum of two modified Breit-Wigner amplitudes ($\phi(1680)$ and $\phi(2170)$) and a nonresonant term. NODE=M103W;LINKAGE=G

[5] From a fit using a coherent sum of a phase-space modified Breit-Wigner function and a phase-space term. NODE=M103W;LINKAGE=D

[6] By a simultaneous fit of the intermediate channels in a partial-wave analysis, assuming the same structure, modelled with a coherent sum of a nonresonant component and a resonant component by a Breit-Wigner function. NODE=M103W;LINKAGE=E

[7] From a VDM fit to ZHU 23 $\eta\phi\gamma$ data with two resonances, $\phi(1680)$, $\phi(2170)$, and a third resonance with mass 1850.7 ± 5.3 MeV and width 25 ± 35 MeV of 1.7 σ statistical evidence. NODE=M103W;LINKAGE=K

[8] From the analysis of the combined measurements of $\sigma(e^+e^- \rightarrow \eta\phi)$ from BaBar, Belle, BESIII, CMD3. The statistical significance for $\phi(2170)$ is 7.2 σ. NODE=M103W;LINKAGE=L

[9] From a fit to the cross section between 2.00 and 3.08 GeV with a sum of Breit-Wigner amplitude and a nonresonant contribution. The observed structure can be also due to $\rho(2150)$. NODE=M103W;LINKAGE=H

[10] The observed structure can be due to both the $\phi(2170)$ and $\rho(2150)$. NODE=M103W;LINKAGE=C

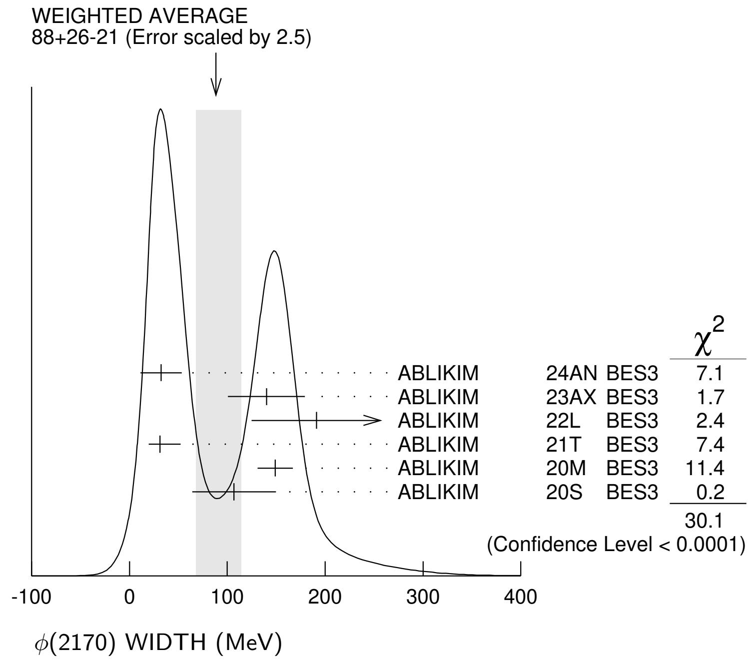
[11] Fit includes interference with the $\phi(1680)$. NODE=M103W;LINKAGE=A

[12] From the $\phi f_0(980)$ component. NODE=M103W;LINKAGE=AB

[13] From a fit with two incoherent Breit-Wigners. NODE=M103W;LINKAGE=SH

[14] From the $K^+K^-f_0(980)$ component. NODE=M103W;LINKAGE=AU

[15] Superseded by LEES 12F. NODE=M103W;LINKAGE=B



$\phi(2170)$ DECAY MODES

NODE=M103215;NODE=M103

	Mode	Fraction (Γ_i/Γ)	
Γ_1	$e^+ e^-$	seen	DESIG=1;OUR EVAL;→ UNCHECKED ←
Γ_2	$\phi\eta$	seen	DESIG=5;OUR EVAL;→ UNCHECKED ←
Γ_3	$\phi\eta'$	seen	DESIG=11;OUR EVAL;→ UNCHECKED ←
Γ_4	$\phi\pi\pi$	seen	DESIG=9
Γ_5	$\phi f_0(980)$	seen	DESIG=2;OUR EVAL;→ UNCHECKED ←
Γ_6	$K_S^0 K_L^0$		DESIG=17
Γ_7	$K^+ K^- \pi^+ \pi^-$		DESIG=3
Γ_8	$K^+ K^- f_0(980) \rightarrow K^+ K^- \pi^+ \pi^-$	seen	DESIG=6
Γ_9	$K^+ K^- \pi^0 \pi^0$		DESIG=4
Γ_{10}	$K^+ K^- f_0(980) \rightarrow K^+ K^- \pi^0 \pi^0$	seen	DESIG=7
Γ_{11}	$K^{*0} K^\pm \pi^\mp$	not seen	DESIG=8
Γ_{12}	$K^*(892)^0 \overline{K}^*(892)^0$	not seen	DESIG=10
Γ_{13}	$K^*(892)^+ K^*(892)^-$		DESIG=15
Γ_{14}	$K^*(892)^+ K^- +$ c.c.		DESIG=19
Γ_{15}	$K^*(892)^0 \overline{K}^0$		DESIG=21
Γ_{16}	$K(1460)^+ K^- +$ c.c.		DESIG=12
Γ_{17}	$K_1(1270)^+ K^- +$ c.c.		DESIG=14
Γ_{18}	$K_1(1400)^+ K^- +$ c.c.		DESIG=13
Γ_{19}	$K_2^*(1430)^+ K^- +$ c.c.		DESIG=18

$\phi(2170)$ $\Gamma(i)\Gamma(e^+e^-)/\Gamma(\text{total})$

NODE=M103230

$\Gamma(\phi\eta) \times \Gamma(e^+e^-)/\Gamma_{total}$ — $\Gamma_2\Gamma_1/\Gamma$

NODE=M103G2
NODE=M103G2

VALUE (eV)	*CL%*	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •						
0.17	90		[1] ZHU	23	BELL	$e^+e^- \rightarrow \Upsilon(nS) \rightarrow \phi\eta\gamma$
$0.36^{+0.05}_{-0.03} \pm 0.07$ to $41 \pm 2 \pm 6$			[2] ZHU	23A	RVUE	$e^+e^- \rightarrow \eta\phi$
$0.24^{+0.12}_{-0.07}$			[3] ABLIKIM	21T	BES3	$e^+e^- \rightarrow \phi\eta$
$1.7 \pm 0.7 \pm 1.3$		483	AUBERT	08S	BABR	$10.6\ e^+e^- \rightarrow \phi\eta\gamma$

[1] From a solution of the fit using a vector meson dominance model with contributions from $\phi(1680)$, $\phi(2170)$ and non resonant contribution with mass and width of $\phi(2170)$ fixed at 2163.5 MeV and 31.1 MeV respectively. Four solutions are found with equal fit quality giving 0.17 eV (solution I and II) and 18.6 eV (III and IV) at 90% CL. NODE=M103G2;LINKAGE=B

[2] From the analysis of the combined measurements of $\sigma(e^+ e^- \to \eta\phi)$ from BaBar, Belle, BESIII, CMD3. The statistical significance for $\phi(2170)$ is 7.2 σ. Four solutions are found, with equal fit quality: $(0.56^{+0.03}_{-0.02} \pm 0.07)$ eV, $(0.36^{+0.05}_{-0.03} \pm 0.07)$ eV, $(38 \pm 1 \pm 5)$ eV, $(41 \pm 2 \pm 6)$ eV. NODE=M103G2;LINKAGE=C

[3] From a solution of the fit to the cross section below 3.5 GeV measured by BaBar and BESIII with a coherent sum of two modified Breit-Wigner amplitudes ($\phi(1680)$ and $\phi(2170)$) and a nonresonant term. The other solution gives $10.11^{+3.87}_{-3.13}$ eV. NODE=M103G2;LINKAGE=A

$\Gamma(\phi\eta') \times \Gamma(e^+e^-)/\Gamma_{total}$ — $\Gamma_3\Gamma_1/\Gamma$

NODE=M103R00
NODE=M103R00

VALUE (eV)	DOCUMENT ID		TECN	COMMENT
7.1±0.7±0.7	[1] ABLIKIM	20M	BES3	$e^+ e^- \to \eta' \phi$

[1] From a fit using a coherent sum of a phase-space modified Breit-Wigner function and a phase-space term. NODE=M103R00;LINKAGE=A

$\Gamma(\phi f_0(980)) \times \Gamma(e^+e^-)/\Gamma_{total}$ — $\Gamma_5\Gamma_1/\Gamma$

NODE=M103G1
NODE=M103G1

VALUE (eV)	EVTS	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2.3±0.3±0.3		[1,2] LEES	12F	BABR	10.6 $e^+ e^- \to \phi\pi^+\pi^-\gamma$
2.5±0.8±0.4	201	[2,3] AUBERT,BE	06D	BABR	10.6 $e^+ e^- \to K^+ K^- \pi\pi\gamma$

[1] From a fit with constructive interference with the $\phi(1680)$. In a fit with destructive interference, the value is larger by a factor of 12. NODE=M103G1;LINKAGE=A

[2] For $f_0(980) \to \pi\pi$. NODE=M103G1;LINKAGE=AB

[3] Superseded by LEES 12F. NODE=M103G1;LINKAGE=B

$\Gamma(K^0_S K^0_L) \times \Gamma(e^+e^-)/\Gamma_{total}$ — $\Gamma_6\Gamma_1/\Gamma$

NODE=M103R10
NODE=M103R10

VALUE (eV)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.9±0.6±0.7	[1] ABLIKIM	21AP	BES3	$e^+ e^- \to K^0_S K^0_L$

[1] From a fit to the cross section between 2.00 and 3.08 GeV with a sum of Breit-Wigner amplitude and a nonresonant contribution. The observed structure can be also due to $\rho(2150)$. NODE=M103R10;LINKAGE=A

$\Gamma(K^*(892)^+ K^*(892)^-) \times \Gamma(e^+e^-)/\Gamma_{total}$ — $\Gamma_{13}\Gamma_1/\Gamma$

NODE=M103R08
NODE=M103R08

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
<1.9	90	[1] ABLIKIM	20S	BES3	$e^+ e^- \to K^+ K^- \pi^0 \pi^0$

[1] By a simultaneous fit of the intermediate channels in a partial-wave analysis, assuming the same structure, modelled with a coherent sum of a nonresonant component and a resonant component by a Breit-Wigner function. NODE=M103R08;LINKAGE=A

$\Gamma(K^*(892)^+ K^- + c.c.) \times \Gamma(e^+e^-)/\Gamma_{total}$ — $\Gamma_{14}\Gamma_1/\Gamma$

NODE=M103R11
NODE=M103R11

VALUE (eV)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1.0±0.3	[1] ABLIKIM	22L	BES3	2.0–3.08 $e^+ e^- \to K^+ K^- \pi^0$

[1] From a solution of a simultaneous fit of the $K^*_2(1430)^+ K^-$ and $K^*(892)^+ K^-$ intermediate channels in a partial-wave analysis, assuming the same structure, modelled with a coherent sum of a nonresonant component and a resonant component by a Breit-Wigner function. The other solution gives 7.1 ± 0.9 eV. Significance 3.7 σ. NODE=M103R11;LINKAGE=A

$\Gamma(K^*(892)^0 \overline{K}^0) \times \Gamma(e^+e^-)/\Gamma_{total}$ — $\Gamma_{15}\Gamma_1/\Gamma$

NODE=M103R15
NODE=M103R15

VALUE (eV)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1.0±0.2±0.1	[1] ABLIKIM	24AN	BES3	$e^+ e^- \to K^0_S K^0_L \pi^0$
73.6±4.4±2.0	[2] ABLIKIM	24AN	BES3	$e^+ e^- \to K^0_S K^0_L \pi^0$

OCCUR=2

[1] Solution 1 of 2. Seen in $e^+ e^- \to K^*(892)^0 \overline{K}^0 \to K^0_S K^0_L \pi^0$ with a significance of 3.2σ. NODE=M103R15;LINKAGE=A

[2] Solution 2 of 2. Seen in $e^+ e^- \to K^*(892)^0 \overline{K}^0 \to K^0_S K^0_L \pi^0$ with a significance of 3.2σ. NODE=M103R15;LINKAGE=B

$\Gamma(K(1460)^+ K^- + \text{c.c.}) \times \Gamma(e^+ e^-)/\Gamma_{\text{total}}$ $\Gamma_{16}\Gamma_1/\Gamma$

NODE=M103R05
NODE=M103R05

VALUE (eV)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
3.0 ± 3.8	[1] ABLIKIM	20S	BES3	$e^+ e^- \to K^+ K^- \pi^0 \pi^0$

[1] By a simultaneous fit of the intermediate channels in a partial-wave analysis, assuming the same structure, modelled with a coherent sum of a nonresonant component and a resonant component by a Breit-Wigner function.

NODE=M103R05;LINKAGE=A

$\Gamma(K_1(1270)^+ K^- + \text{c.c.}) \times \Gamma(e^+ e^-)/\Gamma_{\text{total}}$ $\Gamma_{17}\Gamma_1/\Gamma$

NODE=M103R06
NODE=M103R06

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
<12.5	90	[1] ABLIKIM	20S	BES3	$e^+ e^- \to K^+ K^- \pi^0 \pi^0$

[1] By a simultaneous fit of the intermediate channels in a partial-wave analysis, assuming the same structure, modelled with a coherent sum of a nonresonant component and a resonant component by a Breit-Wigner function. A second solution of the fit with equal fit quality gives an upper limit value of 297.6 eV.

NODE=M103R06;LINKAGE=A

$\Gamma(K_1(1400)^+ K^- + \text{c.c.}) \times \Gamma(e^+ e^-)/\Gamma_{\text{total}}$ $\Gamma_{18}\Gamma_1/\Gamma$

NODE=M103R07
NODE=M103R07

VALUE (eV)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
4.7 ± 3.3	[1] ABLIKIM	20S	BES3	$e^+ e^- \to K^+ K^- \pi^0 \pi^0$

[1] By a simultaneous fit of the intermediate channels in a partial-wave analysis, assuming the same structure, modelled with a coherent sum of a nonresonant component and a resonant component by a Breit-Wigner function. A second solution of the fit with equal fit quality gives a value of 98.8 ± 7.8 eV.

NODE=M103R07;LINKAGE=A

$\Gamma(K_2^*(1430)^+ K^- + \text{c.c.}) \times \Gamma(e^+ e^-)/\Gamma_{\text{total}}$ $\Gamma_{19}\Gamma_1/\Gamma$

NODE=M103R12
NODE=M103R12

VALUE (eV)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
12.6 ± 2.4	[1] ABLIKIM	22L	BES3	2.0–3.08 $e^+ e^- \to K^+ K^- \pi^0$

[1] From a solution of a simultaneous fit of the $K_2^*(1430)^+ K^-$ and $K^*(892)^+ K^-$ intermediate channels in a partial-wave analysis, assuming the same structure, modelled with a coherent sum of a nonresonant component and a resonant component by a Breit-Wigner function. The other solution gives 161.1 ± 20.6 eV.

NODE=M103R12;LINKAGE=A

$\phi(2170)$ $\Gamma(i)\Gamma(e^+ e^-)/\Gamma^2(\text{total})$

NODE=M103220

$\Gamma(\phi\pi\pi)/\Gamma_{\text{total}} \times \Gamma(e^+ e^-)/\Gamma_{\text{total}}$ $\Gamma_4/\Gamma \times \Gamma_1/\Gamma$

NODE=M103G01
NODE=M103G01

VALUE (units 10^{-7})	EVTS	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$1.65\pm0.15\pm0.18$	4.8k	[1] SHEN	09	BELL	10.6 $e^+ e^- \to K^+ K^- \pi^+ \pi^- \gamma$

[1] Multiplied by 3/2 to take into account the $\phi\pi^0\pi^0$ mode. Using B($\phi \to K^+ K^-$) = (49.2 ± 0.6)%.

NODE=M103G01;LINKAGE=SH

$\phi(2170)$ BRANCHING RATIOS

NODE=M103225

$\Gamma(\phi\pi\pi)/\Gamma_{\text{total}}$ Γ_4/Γ

NODE=M103R13
NODE=M103R13

VALUE	DOCUMENT ID		TECN	COMMENT
seen	[1] ABLIKIM	23AX	BES3	$e^+ e^- \to \phi\pi^+ \pi^-$

[1] From a fit to the $e^+ e^-$ cross section between 2.00 and 3.08 GeV with a sum of Breit-Wigner amplitude and a non-resonant contribution.

NODE=M103R13;LINKAGE=A

$\Gamma(K^+ K^- f_0(980) \to K^+ K^- \pi^+ \pi^-)/\Gamma_{\text{total}}$ Γ_8/Γ

NODE=M103R01
NODE=M103R01

VALUE	DOCUMENT ID		TECN	COMMENT
seen	AUBERT	07AK	BABR	10.6 $e^+ e^- \to K^+ K^- \pi^+ \pi^- \gamma$

$\Gamma(K^+ K^- f_0(980) \to K^+ K^- \pi^0 \pi^0)/\Gamma_{\text{total}}$ Γ_{10}/Γ

NODE=M103R02
NODE=M103R02

VALUE	DOCUMENT ID		TECN	COMMENT
seen	AUBERT	07AK	BABR	10.6 $e^+ e^- \to K^+ K^- \pi^0 \pi^0 \gamma$

$\Gamma(K^{*0} K^\pm \pi^\mp)/\Gamma_{\text{total}}$ Γ_{11}/Γ

NODE=M103R03
NODE=M103R03

VALUE	DOCUMENT ID		TECN	COMMENT
not seen	AUBERT	07AX	BABR	10.6 GeV $e^+ e^-$

$\Gamma\left(K^*(892)^0 \overline{K}^*(892)^0\right)/\Gamma_{total}$ Γ_{12}/Γ

NODE=M103R04

VALUE	DOCUMENT ID		TECN	COMMENT
not seen	ABLIKIM	10C	BES2	$J/\psi \rightarrow \eta K^+ \pi^- K^- \pi^+$

NODE=M103R04

ϕ(2170) REFERENCES

NODE=M103

ABLIKIM	24AN	JHEP 2401 180	M. Ablikim *et al.*	(BESIII Collab.)	REFID=62698
ABLIKIM	23AX	PR D108 032011	M. Ablikim *et al.*	(BESIII Collab.)	REFID=62350
LICHARD	23	PR D108 092005	P. Lichard	(OPAV, CTUP)	REFID=62426
ZHU	23	PR D107 012006	W. Zhu *et al.*	(BELLE Collab.)	REFID=61911
ZHU	23A	CP C47 113003	W. Zhu, X. Wang	(RVUE)	REFID=62439
ABLIKIM	22L	JHEP 2207 045	M. Ablikim *et al.*	(BESIII Collab.)	REFID=61649
ABLIKIM	21AP	PR D104 092014	M. Ablikim *et al.*	(BESIII Collab.)	REFID=61448
ABLIKIM	21T	PR D104 032007	M. Ablikim *et al.*	(BESIII Collab.)	REFID=61154
ABLIKIM	20M	PR D102 012008	M. Ablikim *et al.*	(BESIII Collab.)	REFID=60337
ABLIKIM	20S	PRL 124 112001	M. Ablikim *et al.*	(BESIII Collab.)	REFID=60542
ABLIKIM	19I	PR D99 012014	M. Ablikim *et al.*	(BESIII Collab.)	REFID=59605
ABLIKIM	19L	PR D99 032001	M. Ablikim *et al.*	(BESIII Collab.)	REFID=59612
ABLIKIM	15H	PR D91 052017	M. Ablikim *et al.*	(BESIII Collab.)	REFID=56773
LEES	12F	PR D86 012008	J.P. Lees *et al.*	(BABAR Collab.)	REFID=54298
ABLIKIM	10C	PL B685 27	M. Ablikim *et al.*	(BES II Collab.)	REFID=53349
SHEN	09	PR D80 031101	C.P. Shen *et al.*	(BELLE Collab.)	REFID=53000
ABLIKIM	08F	PRL 100 102003	M. Ablikim *et al.*	(BES Collab.)	REFID=52154
AUBERT	08S	PR D77 092002	B. Aubert *et al.*	(BABAR Collab.)	REFID=52242
AUBERT	07AK	PR D76 012008	B. Aubert *et al.*	(BABAR Collab.)	REFID=51908
AUBERT,BE	06D	PR D74 091103	B. Aubert *et al.*	(BABAR Collab.)	REFID=51511