

$K^*(892)$

$$I(J^P) = \frac{1}{2}(1^-)$$

NODE=M018

 $K^*(892)$ T-Matrix Pole $\sqrt{s}$

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
(890 ± 14) - i (26 ± 6) OUR ESTIMATE			
(890 ± 2) - i (25.6 ± 1.2)	¹ PELAEZ	20	RVUE $\pi K \rightarrow \pi K$
(892 ± 1) - i (29 ± 1)	² PELAEZ	17	RVUE $\pi K \rightarrow \pi K$
(889 ± 13) - i (24 ± 4)	³ PELAEZ	04A	RVUE $\pi K \rightarrow \pi K$
¹ Extracted employing πK partial wave analysis from ESTABROOKS 78 and ASTON 88, Roy-Steiner equations and once subtracted forward dispersion relations.			
² Reanalysis of ESTABROOKS 78 and ASTON 88 satisfying Forward Dispersion Relations and using sequences of Pade approximants.			
³ Reanalysis of data from ESTABROOKS 78 and ASTON 88 in the unitarized ChPT model.			

NODE=M018TMP

NODE=M018TMP

→ UNCHECKED ←

OCCUR=2

NODE=M018TMP;LINKAGE=A

NODE=M018TMP;LINKAGE=E

NODE=M018TMP;LINKAGE=B

 $K^*(892)$ MASS

NODE=M018205

CHARGED ONLY, HADROPRODUCED

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
891.67 ± 0.26 OUR AVERAGE					
892.2 ± 0.5 ± 1.7		ALBRECHT	20	CBAR	0.9 $\bar{p}p \rightarrow K^+ K^- \pi^0$
892.6 ± 0.5	5840	BAUBILLIER	84B	HBC	- 8.25 $K^- p \rightarrow \bar{K}^0 \pi^- p$
888 ± 3		NAPIER	84	SPEC	+ 200 $\pi^- p \rightarrow 2K_S^0 X$
891 ± 1		NAPIER	84	SPEC	- 200 $\pi^- p \rightarrow 2K_S^0 X$
891.7 ± 2.1	3700	BARTH	83	HBC	+ 70 $K^+ p \rightarrow K^0 \pi^+ X$
891 ± 1	4100	TOAFF	81	HBC	- 6.5 $K^- p \rightarrow \bar{K}^0 \pi^- p$
892.8 ± 1.6		AJINENKO	80	HBC	+ 32 $K^+ p \rightarrow K^0 \pi^+ X$
890.7 ± 0.9	1800	AGUILAR-...	78B	HBC	± 0.76 $\bar{p}p \rightarrow K^\mp K_S^0 \pi^\pm$
886.6 ± 2.4	1225	BALAND	78	HBC	± 12 $\bar{p}p \rightarrow (K\pi)^\pm X$
891.7 ± 0.6	6706	COOPER	78	HBC	± 0.76 $\bar{p}p \rightarrow (K\pi)^\pm X$
891.9 ± 0.7	9000	¹ PALER	75	HBC	- 14.3 $K^- p \rightarrow (K\pi)^- X$
892.2 ± 1.5	4404	AGUILAR-...	71B	HBC	- 3.9,4.6 $K^- p \rightarrow (K\pi)^- p$
891 ± 2	1000	CRENNELL	69D	DBC	- 3.9 $K^- N \rightarrow K^0 \pi^- X$
890 ± 3.0	720	BARLOW	67	HBC	± 1.2 $\bar{p}p \rightarrow (K^0 \pi)^\pm K^\mp$
889 ± 3.0	600	BARLOW	67	HBC	± 1.2 $\bar{p}p \rightarrow (K^0 \pi)^\pm K\pi$
891 ± 2.3	620	² DEBAERE	67B	HBC	+ 3.5 $K^+ p \rightarrow K^0 \pi^+ p$
891.0 ± 1.2	1700	³ WOJCICKI	64	HBC	- 1.7 $K^- p \rightarrow \bar{K}^0 \pi^- p$

OCCUR=2

OCCUR=2

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

893.6 ± 0.1 $^{+0.2}_{-0.3}$	183k	ABLIKIM	19AQ	BES	±	$J/\psi \rightarrow K^+ K^- \pi^0$
895.6 ± 0.8	4k	⁴ LEES	17C	BABR		$J/\psi \rightarrow K_S^0 K^\pm \pi^\mp$
893.2 ± 0.1 ± 1.0	190k	⁵ AAIJ	16N	LHCB		$D^0 \rightarrow K_S^0 K^\pm \pi^\mp$
893.5 ± 1.1	27k	⁶ ABELE	99D	CBAR	±	0.0 $\bar{p}p \rightarrow K^+ K^- \pi^0$
890.4 ± 0.2 ± 0.5	80k	⁷ BIRD	89	LASS	-	11 $K^- p \rightarrow \bar{K}^0 \pi^- p$
890.0 ± 2.3	800	^{2,3} CLELAND	82	SPEC	+	30 $K^+ p \rightarrow K_S^0 \pi^+ p$
896.0 ± 1.1	3200	^{2,3} CLELAND	82	SPEC	+	50 $K^+ p \rightarrow K_S^0 \pi^+ p$
893 ± 1	3600	^{2,3} CLELAND	82	SPEC	-	50 $K^+ p \rightarrow K_S^0 \pi^- p$
896.0 ± 1.9	380	DELFOSSÉ	81	SPEC	+	50 $K^\pm p \rightarrow K^\pm \pi^0 p$
886.0 ± 2.3	187	DELFOSSÉ	81	SPEC	-	50 $K^\pm p \rightarrow K^\pm \pi^0 p$
894.2 ± 2.0	765	² CLARK	73	HBC	-	3.13 $K^- p \rightarrow \bar{K}^0 \pi^- p$
894.3 ± 1.5	1150	^{2,3} CLARK	73	HBC	-	3.3 $K^- p \rightarrow \bar{K}^0 \pi^- p$
892.0 ± 2.6	341	² SCHWEING...	68	HBC	-	5.5 $K^- p \rightarrow \bar{K}^0 \pi^- p$

OCCUR=2

OCCUR=3

OCCUR=2

OCCUR=2

OCCUR=2

NODE=M018M;LINKAGE=I

NODE=M018M;LINKAGE=D

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NODE=M018M1;LINKAGE=B

NODE=M018M1;LINKAGE=A

NODE=M018M1;LINKAGE=AN

NODE=M018M1;LINKAGE=F

¹ Inclusive reaction. Complicated background and phase-space effects.² Mass errors enlarged by us to $\Gamma/\sqrt{N}$. See note.³ Number of events in peak reevaluated by us.⁴ From a Dalitz plot analysis in an isobar model with charged and neutral $K^*(892)$ masses and widths floating.⁵ Average of fit results with different parametrizations for the $K\pi$ S-wave.⁶ K-matrix pole.⁷ From a partial wave amplitude analysis.

CHARGED ONLY, PRODUCED IN τ LEPTON DECAYS

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
895.47$\pm$0.20$\pm$0.74	53k	¹ EPIFANOV	07 BELL	$\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
892.0 $\pm$ 0.5		² BOITO	10 RVUE	$\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$
892.0 $\pm$ 0.9		^{3,4} BOITO	09 RVUE	$\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$
895.3 $\pm$ 0.2		^{4,5} JAMIN	08 RVUE	$\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$
896.4 $\pm$ 0.9	12k	⁶ BONVICINI	02 CLEO	$\tau^- \rightarrow K^- \pi^0 \nu_\tau$
895 $\pm$ 2		⁷ BARATE	99R ALEP	$\tau^- \rightarrow K^- \pi^0 \nu_\tau$

¹ From a fit in the $K_0^*(700) + K^*(892) + K^*(1410)$ model.

² From the pole position of the $K\pi$ vector form factor using EPIFANOV 07 and constraints from K_{J3} decays in ANTONELLI 10.

³ From the pole position of the $K\pi$ vector form factor in the complex s -plane and using EPIFANOV 07 data.

⁴ Systematic uncertainties not estimated.

⁵ Reanalysis of EPIFANOV 07 using resonance chiral theory.

⁶ Calculated by us from the shift by 4.7 ± 0.9 MeV (statistical uncertainty only) reported in BONVICINI 02 with respect to the world average value from PDG 00.

⁷ With mass and width of the $K^*(1410)$ fixed at 1412 MeV and 227 MeV, respectively.

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NODE=M018MCT;LINKAGE=NS
NODE=M018MCT;LINKAGE=JA
NODE=M018MCT;LINKAGE=BO

NODE=M018MCT;LINKAGE=BA

NEUTRAL ONLY

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
895.55$\pm$0.20 OUR AVERAGE		Error includes scale factor of 1.7. See the ideogram below.		
894.68 $\pm$ 0.25 $\pm$ 0.05		¹ ABLIKIM	16F BES3	$D^+ \rightarrow K^- \pi^+ e^+ \nu_e$
895.4 $\pm$ 0.2 $\pm$ 0.2	243k	² DEL-AMO-SA..11I	BABR	$D^+ \rightarrow K^- \pi^+ e^+ \nu_e$
895.7 $\pm$ 0.2 $\pm$ 0.3	141k	³ BONVICINI	08A CLEO	$D^+ \rightarrow K^- \pi^+ \pi^+$
895.41 $\pm$ 0.32 $^{+0.35}_{-0.43}$	18k	⁴ LINK	05I FOCS	$D^+ \rightarrow K^- \pi^+ \mu^+ \nu_\mu$
896 $\pm$ 2		BARBERIS	98E OMEG	450 $pp \rightarrow p_f p_s K^* \bar{K}^*$
895.9 $\pm$ 0.5 $\pm$ 0.2		ASTON	88 LASS	11 $K^- p \rightarrow K^- \pi^+ n$
894.52 $\pm$ 0.63	25k	⁵ ATKINSON	86 OMEG	20-70 γp
894.63 $\pm$ 0.76	20k	⁵ ATKINSON	86 OMEG	20-70 γp
897 $\pm$ 1	28k	EVANGELIS...	80 OMEG	10 $\pi^- p \rightarrow K^+ \pi^- (\Lambda, \Sigma)$
898.4 $\pm$ 1.4	1180	AGUILAR-...	78B HBC	0.76 $\bar{p} p \rightarrow K^\mp K_S^0 \pi^\pm$
894.9 $\pm$ 1.6		WICKLUND	78 ASPK	3,4,6 $K^\pm N \rightarrow (K\pi)^0 N$
897.6 $\pm$ 0.9		BOWLER	77 DBC	5.4 $K^+ d \rightarrow K^+ \pi^- p p$
895.5 $\pm$ 1.0	3600	MCCUBBIN	75 HBC	3.6 $K^- p \rightarrow K^- \pi^+ n$
897.1 $\pm$ 0.7	22k	⁵ PALER	75 HBC	14.3 $K^- p \rightarrow (K\pi)^0 X$
896.0 $\pm$ 0.6	10k	FOX	74 RVUE	2 $K^- p \rightarrow K^- \pi^+ n$
896.0 $\pm$ 0.6		FOX	74 RVUE	2 $K^+ n \rightarrow K^+ \pi^- p$
896 $\pm$ 2		⁶ MATISON	74 HBC	12 $K^+ p \rightarrow K^+ \pi^- \Delta$
896 $\pm$ 1	3186	LEWIS	73 HBC	2.1-2.7 $K^+ p \rightarrow K\pi\pi p$
894.0 $\pm$ 1.3		⁶ LINGLIN	73 HBC	2-13 $K^+ p \rightarrow K^+ \pi^- \pi^+ p$
898.4 $\pm$ 1.3	1700	⁷ BUCHNER	72 DBC	4.6 $K^+ n \rightarrow K^+ \pi^- p$
897.9 $\pm$ 1.1	2934	⁷ AGUILAR-...	71B HBC	3,9,4,6 $K^- p \rightarrow K^- \pi^+ n$
898.0 $\pm$ 0.7	5362	⁷ AGUILAR-...	71B HBC	3,9,4,6 $K^- p \rightarrow K^- \pi^+ \pi^- p$
895 $\pm$ 1	4300	⁸ HABER	70 DBC	3 $K^- N \rightarrow K^- \pi^+ X$
893.7 $\pm$ 2.0	10k	DAVIS	69 HBC	12 $K^+ p \rightarrow K^+ \pi^- \pi^+ p$
894.7 $\pm$ 1.4	1040	⁷ DAUBER	67B HBC	2.0 $K^- p \rightarrow K^- \pi^+ \pi^- p$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
895.50 $\pm$ 0.92 $\pm$ 2.6		⁹ ADUSZKIEW...20A	NA61	158 pp
898.1 $\pm$ 1.0	4k	¹⁰ LEES	17C BABR	$J/\psi \rightarrow K_S^0 K^\pm \pi^\mp$
895.53 $\pm$ 0.17		LEES	13F BABR	$D^+ \rightarrow K^+ K^- \pi^+$
894.9 $\pm$ 0.5 $\pm$ 0.7	14.4k	¹¹ MITCHELL	09A CLEO	$D_s^+ \rightarrow K^+ K^- \pi^+$
896.2 $\pm$ 0.3	20k	¹² AUBERT	07AK BABR	10.6 $e^+ e^- \rightarrow K^{*0} K^\pm \pi^\mp \gamma$
900.7 $\pm$ 1.1	5900	BARTH	83 HBC	70 $K^+ p \rightarrow K^+ \pi^- X$

¹ Taking also into account the $K_0^*(1430)^0$ and $K_2^*(1430)^0$.

² Taking into account the $K^*(892)^0$, S -wave and P -wave ($K^*(1410)^0$).

³ From the isobar model with a complex pole for the κ .

⁴ Fit to $K\pi$ mass spectrum includes a non-resonant scalar component.

⁵ Inclusive reaction. Complicated background and phase-space effects.

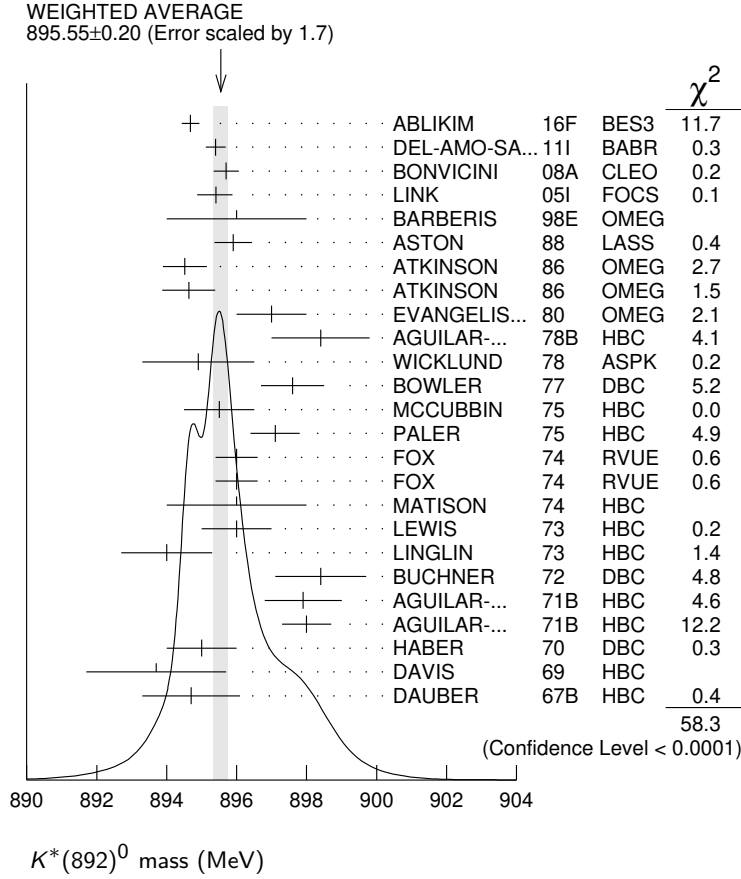
⁶ From pole extrapolation.

⁷ Mass errors enlarged by us to $\Gamma/\sqrt{N}$. See note.

NODE=M018M2;LINKAGE=B
NODE=M018M2;LINKAGE=DE
NODE=M018M2;LINKAGE=BO
NODE=M018M2;LINKAGE=LI
NODE=M018M2;LINKAGE=I
NODE=M018M;LINKAGE=C
NODE=M018M2;LINKAGE=D

- ⁸ Number of events in peak reevaluated by us.
⁹ For transverse momenta between 0.6 and 0.8 GeV/c and rapidity $0 < y < 0.5$.
¹⁰ From a Dalitz plot analysis in an isobar model with charged and neutral $K^*(892)$ masses and widths floating.
¹¹ This value comes from a fit with χ^2 of 178/117.
¹² Systematic uncertainties not estimated.

NODE=M018M2;LINKAGE=W
 NODE=M018M2;LINKAGE=C
 NODE=M018M2;LINKAGE=A
 NODE=M018M2;LINKAGE=MI
 NODE=M018M2;LINKAGE=NS



NODE=M018209

$K^*(892)$ MASSES AND MASS DIFFERENCES

Unrealistically small errors have been reported by some experiments. We use simple “realistic” tests for the minimum errors on the determination of a mass and width from a sample of N events:

$$\delta_{\min}(m) = \frac{\Gamma}{\sqrt{N}}, \quad \delta_{\min}(\Gamma) = 4 \frac{\Gamma}{\sqrt{N}}. \quad (1)$$

We consistently increase unrealistic errors before averaging. For a detailed discussion, see the 1971 edition of this Note.

$m_{K^*(892)^0} - m_{K^*(892)^\pm}$					
VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
6.7 ± 1.2 OUR AVERAGE					
7.7 ± 1.7	2980	AGUILAR-...	78B	HBC	± 0 $0.76 \bar{p} p \rightarrow K^\mp K_S^0 \pi^\pm$
5.7 ± 1.7	7338	AGUILAR-...	71B	HBC	-0 $3.9, 4.6 K^- p$
6.3 ± 4.1	283	¹ BARASH	67B	HBC	$0.0 \bar{p} p$

NODE=M018D

NODE=M018D

¹ Number of events in peak reevaluated by us.

NODE=M018D;LINKAGE=W

$K^*(892)$ RANGE PARAMETER

All from partial wave amplitude analyses.

NODE=M018R

NODE=M018R

NODE=M018R

VALUE (GeV ⁻¹)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
2.1 ±0.5 ±0.5	243k	¹ DEL-AMO-SA.11i	BABR	0	$D^+ \rightarrow K^- \pi^+ e^+ \nu_e$
3.96 ±0.54 ^{+1.31} _{-0.90}	18k	² LINK	05i	FOCS	0 $D^+ \rightarrow K^- \pi^+ \mu^+ \nu_\mu$
3.4 ±0.7		ASTON	88	LASS	0 11 $K^- p \rightarrow K^- \pi^+ n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
12.1 ±3.2 ±3.0		BIRD	89	LASS	- 11 $K^- p \rightarrow \bar{K}^0 \pi^- p$
¹ Taking into account the $K^*(892)^0$, S-wave and P-wave ($K^*(1410)^0$).					
² Fit to $K\pi$ mass spectrum includes a non-resonant scalar component.					

NODE=M018R;LINKAGE=DE
NODE=M018R;LINKAGE=LI

$K^*(892)$ WIDTH

NODE=M018215

CHARGED ONLY, HADROPRODUCED

NODE=M018W1
NODE=M018W1

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
51.4±0.8 OUR FIT					
51.4±0.8 OUR AVERAGE					
54.4±0.9±1.7		ALBRECHT	20	CBAR	0.9 $\bar{p}p \rightarrow K^+ K^- \pi^0$
49 ±2	5840	BAUBILLIER	84B	HBC	- 8.25 $K^- p \rightarrow \bar{K}^0 \pi^- p$
56 ±4		NAPIER	84	SPEC	- 200 $\pi^- p \rightarrow 2K_S^0 X$
51 ±2	4100	TOAFF	81	HBC	- 6.5 $K^- p \rightarrow \bar{K}^0 \pi^- p$
50.5±5.6		AJINENKO	80	HBC	+ 32 $K^+ p \rightarrow K^0 \pi^+ X$
45.8±3.6	1800	AGUILAR-...	78B	HBC	± 0.76 $\bar{p}p \rightarrow K^\mp K_S^0 \pi^\pm$
52.0±2.5	6706	¹ COOPER	78	HBC	± 0.76 $\bar{p}p \rightarrow (K\pi)^\pm X$
52.1±2.2	9000	² PALER	75	HBC	- 14.3 $K^- p \rightarrow (K\pi)^- X$
46.3±6.7	765	¹ CLARK	73	HBC	- 3.13 $K^- p \rightarrow \bar{K}^0 \pi^- p$
48.2±5.7	1150	^{1,3} CLARK	73	HBC	- 3.3 $K^- p \rightarrow \bar{K}^0 \pi^- p$
54.3±3.3	4404	¹ AGUILAR-...	71B	HBC	- 3.9,4.6 $K^- p \rightarrow (K\pi)^- p$
46 ±5	1700	^{1,3} WOJCICKI	64	HBC	- 1.7 $K^- p \rightarrow \bar{K}^0 \pi^- p$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
46.7±0.2 ^{+0.1} _{-0.2}	183k	ABLIKIM	19AQ	BES	± $J/\psi \rightarrow K^+ K^- \pi^0$
43.6±1.3	4k	⁴ LEES	17C	BABR	$J/\psi \rightarrow K_S^0 K^\pm \pi^\mp$
47.2±0.3±2.3	190k	⁵ AAIJ	16N	LHCB	$D^0 \rightarrow K_S^0 K^\pm \pi^\mp$
54.8±1.7	27k	⁶ ABELE	99D	CBAR	± 0.0 $\bar{p}p \rightarrow K^+ K^- \pi^0$
45.2±1 ±2	80k	⁷ BIRD	89	LASS	- 11 $K^- p \rightarrow \bar{K}^0 \pi^- p$
42.8±7.1	3700	BARTH	83	HBC	+ 70 $K^+ p \rightarrow K^0 \pi^+ X$
64.0±9.2	800	^{1,3} CLELAND	82	SPEC	+ 30 $K^+ p \rightarrow K_S^0 \pi^+ p$
62.0±4.4	3200	^{1,3} CLELAND	82	SPEC	+ 50 $K^+ p \rightarrow K_S^0 \pi^+ p$
55 ±4	3600	^{1,3} CLELAND	82	SPEC	- 50 $K^+ p \rightarrow K_S^0 \pi^- p$
62.6±3.8	380	DELFOSE	81	SPEC	+ 50 $K^\pm p \rightarrow K^\pm \pi^0 p$
50.5±3.9	187	DELFOSE	81	SPEC	- 50 $K^\pm p \rightarrow K^\pm \pi^0 p$

OCCUR=2

OCCUR=2

OCCUR=2

OCCUR=3

OCCUR=2

¹ Width errors enlarged by us to $4 \times \Gamma/\sqrt{N}$; see note.

² Inclusive reaction. Complicated background and phase-space effects.

³ Number of events in peak reevaluated by us.

⁴ From a Dalitz plot analysis in an isobar model with charged and neutral $K^*(892)$ masses and widths floating.

⁵ Average of fit results with different parametrizations for the $K\pi$ S-wave.

⁶ K-matrix pole.

⁷ From a partial wave amplitude analysis.

NODE=M018W;LINKAGE=D

NODE=M018W;LINKAGE=I

NODE=M018W;LINKAGE=W

NODE=M018W1;LINKAGE=B

NODE=M018W1;LINKAGE=A

NODE=M018W1;LINKAGE=AN

NODE=M018W1;LINKAGE=F

CHARGED ONLY, PRODUCED IN τ LEPTON DECAYS

NODE=M018W5
NODE=M018W5

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
46.2±0.6±1.2				
	53k	¹ EPIFANOV	07	BELL $\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
46.5±1.1		² BOITO	10	RVUE $\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$
46.2±0.4		^{3,4} BOITO	09	RVUE $\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$
47.5±0.4		^{4,5} JAMIN	08	RVUE $\tau^- \rightarrow K_S^0 \pi^- \nu_\tau$
55 ±8		⁶ BARATE	99R	ALEP $\tau^- \rightarrow K^- \pi^0 \nu_\tau$

¹ From a fit in the $K_0^*(700) + K^*(892) + K^*(1410)$ model.

² From the pole position of the $K\pi$ vector form factor using EPIFANOV 07 and constraints from K_{J3} decays in ANTONELLI 10.

³ From the pole position of the $K\pi$ vector form factor in the complex s -plane and using EPIFANOV 07 data.

⁴ Systematic uncertainties not estimated.

⁵ Reanalysis of EPIFANOV 07 using resonance chiral theory.

⁶ With mass and width of the $K^*(1410)$ fixed at 1412 MeV and 227 MeV, respectively.

NODE=M018W5;LINKAGE=EF

NODE=M018W5;LINKAGE=BT

NODE=M018W5;LINKAGE=BI

NODE=M018W5;LINKAGE=NS

NODE=M018W5;LINKAGE=JA

NODE=M018W5;LINKAGE=BA

NODE=M018W2

NODE=M018W2

NEUTRAL ONLY

VALUE (MeV) EVTS DOCUMENT ID TECN COMMENT

47.3 ±0.5 OUR FIT Error includes scale factor of 2.0.

47.3 ±0.5 OUR AVERAGE Error includes scale factor of 2.0. See the ideogram below.

46.53 ±0.56 ±0.31		¹ ABLIKIM	16F	BES3	$D^+ \rightarrow K^- \pi^+ e^+ \nu_e$
46.5 ±0.3 ±0.2	243k	² DEL-AMO-SA..	11I	BABR	$D^+ \rightarrow K^- \pi^+ e^+ \nu_e$
45.3 ±0.5 ±0.6	141k	³ BONVICINI	08A	CLEO	$D^+ \rightarrow K^- \pi^+ \pi^+$
47.79 ±0.86 $^{+1.32}_{-1.06}$	18k	⁴ LINK	05I	FOCS	$D^+ \rightarrow K^- \pi^+ \mu^+ \nu_\mu$
54 ±3		BARBERIS	98E	OMEG	$450 pp \rightarrow p_f p_s K^* \bar{K}^*$
50.8 ±0.8 ±0.9		ASTON	88	LASS	$11 K^- p \rightarrow K^- \pi^+ n$
46.5 ±4.3	5900	BARTH	83	HBC	$70 K^+ p \rightarrow K^+ \pi^- X$
54 ±2	28k	EVANGELIS...	80	OMEG	$10 \pi^- p \rightarrow K^+ \pi^- (\Lambda, \Sigma)$
45.9 ±4.8	1180	AGUILAR-...	78B	HBC	$0.76 \bar{p} p \rightarrow K^\mp K_S^0 \pi^\pm$
51.2 ±1.7		WICKLUND	78	ASPK	$3,4,6 K^\pm N \rightarrow (K\pi)^0 N$
48.9 ±2.5		BOWLER	77	DBC	$5.4 K^+ d \rightarrow K^+ \pi^- pp$
48 $^{+3}_{-2}$	3600	MCCUBBIN	75	HBC	$3.6 K^- p \rightarrow K^- \pi^+ n$
50.6 ±2.5	22k	⁵ PALER	75	HBC	$14.3 K^- p \rightarrow (K\pi)^0 X$
47 ±2	10k	FOX	74	RVUE	$2 K^- p \rightarrow K^- \pi^+ n$
51 ±2		FOX	74	RVUE	$2 K^+ n \rightarrow K^+ \pi^- p$
46.0 ±3.3	3186	⁶ LEWIS	73	HBC	$2.1-2.7 K^+ p \rightarrow K\pi\pi p$
51.4 ±5.0	1700	⁶ BUCHNER	72	DBC	$4.6 K^+ n \rightarrow K^+ \pi^- p$
55.8 $^{+4.2}_{-3.4}$	2934	⁶ AGUILAR-...	71B	HBC	$3.9,4.6 K^- p \rightarrow K^- \pi^+ n$
48.5 ±2.7	5362	AGUILAR-...	71B	HBC	$3.9,4.6 K^- p \rightarrow K^- \pi^+ \pi^- p$
54.0 ±3.3	4300	^{6,7} HABER	70	DBC	$3 K^- N \rightarrow K^- \pi^+ X$
53.2 ±2.1	10k	⁶ DAVIS	69	HBC	$12 K^+ p \rightarrow K^+ \pi^- \pi^+ p$
44 ±5.5	1040	⁶ DAUBER	67B	HBC	$2.0 K^- p \rightarrow K^- \pi^+ \pi^- p$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
48.8 ±1.8 ±2.0		⁸ ADUSZKIEW...	20A	NA61	$158 pp$
52.6 ±1.7	4k	⁹ LEES	17C	BABR	$J/\psi \rightarrow K_S^0 K^\pm \pi^\mp$
44.90 ±0.30		LEES	13F	BABR	$D^+ \rightarrow K^+ K^- \pi^+$
45.7 ±1.1 ±0.5	14.4k	¹⁰ MITCHELL	09A	CLEO	$D_s^+ \rightarrow K^+ K^- \pi^+$
50.6 ±0.9	20k	¹¹ AUBERT	07AK	BABR	$10.6 e^+ e^- \rightarrow K^{*0} K^\pm \pi^\mp \gamma$

OCCUR=2

OCCUR=2

¹ Taking also into account the $K_0^*(1430)^0$ and $K_2^*(1430)^0$.

² Taking into account the $K^*(892)^0$, S -wave and P -wave ($K^*(1410)^0$).

³ From the isobar model with a complex pole for the κ .

⁴ Fit to $K\pi$ mass spectrum includes a non-resonant scalar component.

⁵ Inclusive reaction. Complicated background and phase-space effects.

⁶ Width errors enlarged by us to $4 \times \Gamma/\sqrt{N}$; see note.

⁷ Number of events in peak reevaluated by us.

⁸ For transverse momenta between 0.6 and 0.8 GeV/c and rapidity $0 < y < 0.5$.

⁹ From a Dalitz plot analysis in an isobar model with charged and neutral $K^*(892)$ masses and widths floating.

¹⁰ This value comes from a fit with χ^2 of 178/117.

¹¹ Systematic uncertainties not estimated.

NODE=M018W2;LINKAGE=B

NODE=M018W2;LINKAGE=DE

NODE=M018W2;LINKAGE=BO

NODE=M018W2;LINKAGE=LN

NODE=M018W2;LINKAGE=I

NODE=M018W2;LINKAGE=D

NODE=M018W2;LINKAGE=W

NODE=M018W2;LINKAGE=C

NODE=M018W2;LINKAGE=A

NODE=M018W2;LINKAGE=MI

NODE=M018W2;LINKAGE=NS

CONSTRAINED FIT INFORMATION

An overall fit to the total width and a partial width uses 23 measurements and one constraint to determine 3 parameters. The overall fit has a $\chi^2 = 68.4$ for 21 degrees of freedom.

The following *off-diagonal* array elements are the correlation coefficients $\langle \delta p_i \delta p_j \rangle / (\delta p_i \delta p_j)$, in percent, from the fit to parameters p_i , including the branching fractions, $x_i \equiv \Gamma_i / \Gamma_{\text{total}}$. The fit constrains the x_i whose labels appear in this array to sum to one.

x_4	−100
Γ	13 −13
	x_3 x_4

	Mode	Rate (MeV)	Scale factor
Γ_3	$(K\pi)^0$	47.2 ± 0.5	2.0
Γ_4	$K^0\gamma$	0.117 ± 0.010	

DESIG=12

DESIG=4

$K^*(892)$ PARTIAL WIDTHS

NODE=M018225

$\Gamma(K^0\gamma)$						Γ_4
VALUE (keV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT	
116 ± 10 OUR FIT						
116.5 ± 9.9	584	CARLSMITH	86	SPEC	0	$K_L^0 A \rightarrow K_S^0 \pi^0 A$

NODE=M018W4
NODE=M018W4

$\Gamma(K^\pm\gamma)$						Γ_5
VALUE (keV)		DOCUMENT ID	TECN	CHG	COMMENT	
50 ± 5 OUR FIT						
50 ± 5 OUR AVERAGE						
48 ± 11		BERG	83	SPEC	−	156 $K^- A \rightarrow \bar{K} \pi A$
51 ± 5		CHANDLEE	83	SPEC	+	200 $K^+ A \rightarrow K \pi A$

NODE=M018W3
NODE=M018W3

$K^*(892)$ BRANCHING RATIOS

NODE=M018230

$\Gamma(K^0\gamma)/\Gamma_{\text{total}}$						Γ_4/Γ
VALUE (units 10^{-3})		DOCUMENT ID	TECN	CHG	COMMENT	
2.46 ± 0.21 OUR FIT						
• • • We do not use the following data for averages, fits, limits, etc. • • •						
1.5 ± 0.7		CARITHERS	75B	CNTR	0	8–16 $\bar{K}^0 A$

NODE=M018R3
NODE=M018R3

$\Gamma(K^\pm\gamma)/\Gamma_{\text{total}}$						Γ_5/Γ
VALUE (units 10^{-3})	CL%	DOCUMENT ID	TECN	CHG	COMMENT	
0.98 ± 0.09 OUR FIT						
• • • We do not use the following data for averages, fits, limits, etc. • • •						
< 1.6	95	BEMPORAD	73	CNTR	+	10–16 $K^+ A$

NODE=M018R2
NODE=M018R2

$\Gamma(K\pi\pi)/\Gamma((K\pi)^\pm)$						Γ_6/Γ_2
VALUE	CL%	DOCUMENT ID	TECN	CHG	COMMENT	
< 7 × 10^{−4}	95	JONGEJANS	78	HBC	4 $K^- p \rightarrow p \bar{K}^0 2\pi$	
• • • We do not use the following data for averages, fits, limits, etc. • • •						
< 20 × 10 ^{−4}		WOJCICKI	64	HBC	−	1.7 $K^- p \rightarrow \bar{K}^0 \pi^- p$

NODE=M018R1
NODE=M018R1

$K^*(892)$ REFERENCES

NODE=M018

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ALBRECHT 20	EPJ C80 453	M. Albrecht <i>et al.</i>	(Crystal Barrel Collab.)
PELAEZ 20	PRL 124 172001	J.R. Pelaez <i>et al.</i>	
ABLIKIM 19AQ	PR D100 032004	M. Ablikim <i>et al.</i>	(BESIII Collab.)
LEES 17C	PR D95 072007	J.P. Lees <i>et al.</i>	(BABAR Collab.)
PELAEZ 17	EPJ C77 91	J.R. Pelaez, A.Rodas, J.R. de Elvira	
AAIJ 16N	PR D93 052018	R. Aaij <i>et al.</i>	(LHCb Collab.)
ABLIKIM 16F	PR D94 032001	M. Ablikim <i>et al.</i>	(BESIII Collab.)
LEES 13F	PR D87 052010	J.P. Lees <i>et al.</i>	(BABAR Collab.)
DEL-AMO-SA... 11I	PR D83 072001	P. del Amo Sanchez <i>et al.</i>	(BABAR Collab.)
ANTONELLI 10	EPJ C69 399	M. Antonelli <i>et al.</i>	(FlaviaNet Working Group)
BOITO 10	JHEP 1009 031	D.R. Boito, R. Escribano, M. Jamin	(BARC)
BOITO 09	EPJ C59 821	D.R. Boito, R. Escribano, M. Jamin	

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REFID=60559
REFID=59909
REFID=57981
REFID=57836
REFID=57273
REFID=57307
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REFID=16493
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MITCHELL	09A	PR D79 072008	R.E. Mitchell <i>et al.</i>	(CLEO Collab.)	REFID=52756
BONVICINI	08A	PR D78 052001	G. Bonvicini <i>et al.</i>	(CLEO Collab.)	REFID=52426
JAMIN	08	PL B664 78	M. Jamin, A. Pich, J. Portoles		REFID=52285
AUBERT	07AK	PR D76 012008	B. Aubert <i>et al.</i>	(BABAR Collab.)	REFID=51908
EPIFANOV	07	PL B654 65	D. Epifanov <i>et al.</i>	(BELLE Collab.)	REFID=51929
LINK	05I	PL B621 72	J.M. Link <i>et al.</i>	(FNAL FOCUS Collab.)	REFID=50679
PELAEZ	04A	MPL A19 2879	J.R. Pelaez	(MADU)	REFID=50347
BONVICINI	02	PRL 88 111803	G. Bonvicini <i>et al.</i>	(CLEO Collab.)	REFID=48701
PDG	00	EPJ C15 1	D.E. Groom <i>et al.</i>	(PDG Collab.)	REFID=47469
ABELE	99D	PL B468 178	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)	REFID=47401
BARATE	99R	EPJ C11 599	R. Barate <i>et al.</i>	(ALEPH Collab.)	REFID=47366
BARBERIS	98E	PL B436 204	D. Barberis <i>et al.</i>	(Omega Expt.)	REFID=46348
BIRD	89	SLAC-332	P.F. Bird	(SLAC)	REFID=41002
ASTON	88	NP B296 493	D. Aston <i>et al.</i>	(SLAC, NAGO, CINC, INUS)	REFID=40262
ATKINSON	86	ZPHY C30 521	M. Atkinson <i>et al.</i>	(BONN, CERN, GLAS+)	REFID=20564
CARLSMITH	86	PRL 56 18	D. Carlsmith <i>et al.</i>	(EFI, SACL)	REFID=22461
BAUBILLIER	84B	ZPHY C26 37	M. Baubillier <i>et al.</i>	(BIRM, CERN, GLAS+)	REFID=22459
NAPIER	84	PL 149B 514	A. Napier <i>et al.</i>	(TUFTS, ARIZ, FNAL, FLOR+)	REFID=22460
BARTH	83	NP B223 296	M. Barth <i>et al.</i>	(BRUX, CERN, GENO, MONS+)	REFID=22456
BERG	83	Thesis UMI 83-21652	D.M. Berg	(ROCH)	REFID=22457
CHANDLEE	83	PRL 51 168	C. Chandlee <i>et al.</i>	(ROCH, FNAL, MINN)	REFID=22458
CLELAND	82	NP B208 189	W.E. Cleland <i>et al.</i>	(DURH, GEVA, LAUS+)	REFID=22455
DELFOSSSE	81	NP B183 349	A. Delfosse <i>et al.</i>	(GEVA, LAUS)	REFID=21277
TOAFF	81	PR D23 1500	S. Toaff <i>et al.</i>	(ANL, KANS)	REFID=22454
AJINENKO	80	ZPHY C5 177	I.V. Ajinenko <i>et al.</i>	(SERP, BRUX, MONS+)	REFID=22449
EVANGELIS...	80	NP B165 383	C. Evangelista <i>et al.</i>	(BARI, BONN, CERN+)	REFID=22450
AGUILAR-...	78B	NP B141 101	M. Aguilar-Benitez <i>et al.</i>	(MADR, TATA+)	REFID=22438
BALAND	78	NP B140 220	J.F. Baland <i>et al.</i>	(MONS, BELG, CERN+)	REFID=20369
COOPER	78	NP B136 365	A.M. Cooper <i>et al.</i>	(TATA, CERN, CDEF+)	REFID=22441
ESTABROOKS	78	NP B133 490	P.G. Estabrooks <i>et al.</i>	(MCGI, CARL, DURH+)	REFID=22443
Also			P.G. Estabrooks <i>et al.</i>	(MCGI, CARL, DURH+)	REFID=22444
JONGEJANS	78	NP B139 383	B. Jongejans <i>et al.</i>	(ZEEM, CERN, NIJM+)	REFID=22445
WICKLUND	78	PR D17 1197	A.B. Wicklund <i>et al.</i>	(ANL)	REFID=20124
BOWLER	77	NP B126 31	M.G. Bowler <i>et al.</i>	(OXF)	REFID=22437
CARITHERS	75B	PRL 35 349	W.C.J. Carithers <i>et al.</i>	(ROCH, MCGI)	REFID=22433
MCCUBBIN	75	NP B86 13	N.A. McCubbin, L. Lyons	(OXF)	REFID=22434
PALER	75	NP B96 1	K. Paler <i>et al.</i>	(RHEL, SACL, EPOL)	REFID=22435
FOX	74	NP B80 403	G.C. Fox, M.L. Griss	(CIT)	REFID=22430
MATISON	74	PR D9 1872	M.J. Matison <i>et al.</i>	(LBL)	REFID=22431
BEMPORAD	73	NP B51 1	C. Bemporad <i>et al.</i>	(CERN, ETH, LOIC)	REFID=22416
CLARK	73	NP B54 432	A.G. Clark, L. Lyons, D. Radojicic	(OXF)	REFID=22426
LEWIS	73	NP B60 283	P.H. Lewis <i>et al.</i>	(LOWC, LOIC, CDEF)	REFID=22427
LINGLIN	73	NP B55 408	D. Linglin	(CERN)	REFID=22428
BUCHNER	72	NP B45 333	K. Buchner <i>et al.</i>	(MPIM, CERN, BRUX)	REFID=22418
AGUILAR-...	71B	PR D4 2583	M. Aguilar-Benitez, R.L. Eisner, J.B. Kinson	(BNL)	REFID=22408
HABER	70	NP B17 289	B. Haber <i>et al.</i>	(REHO, SACL, BGNA, EPOL)	REFID=22406
CRENNELL	69D	PRL 22 487	D.J. Crennell <i>et al.</i>	(BNL)	REFID=22399
DAVIS	69	PRL 23 1071	P.J. Davis <i>et al.</i>	(LRL)	REFID=22400
SCHWEING...	68	PR 166 1317	F. Schweingruber <i>et al.</i>	(ANL, NWES)	REFID=22398
BARASH	67B	PR 156 1399	N. Barash <i>et al.</i>	(COLU)	REFID=20160
BARLOW	67	NC 50A 701	J. Barlow <i>et al.</i>	(CERN, CDEF, IRAD, LIVP)	REFID=20041
DAUBER	67B	PR 153 1403	P.M. Dauber <i>et al.</i>	(UCLA)	REFID=22389
DEBAERE	67B	NC 51A 401	W. de Baere <i>et al.</i>	(BRUX, CERN)	REFID=22390
WOJCICKI	64	PR 135 B484	S.G. Wojcicki	(LRL)	REFID=22379