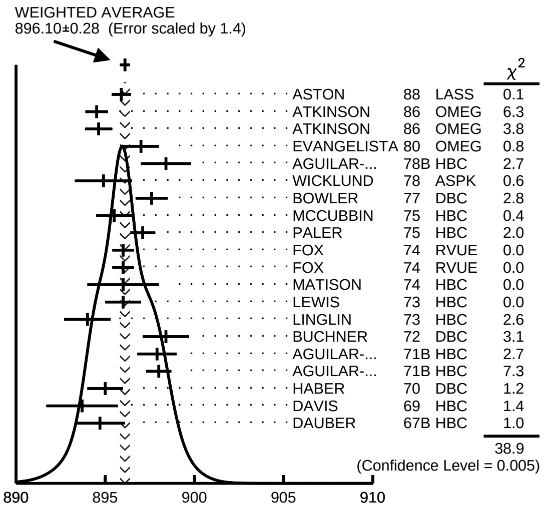

$K^*(892)^0$ mass (MeV)

[1] From a partial wave amplitude analysis.
[2] Inclusive reaction. Complicated background and phase-space effects.
[3] Mass errors enlarged by us to $\Gamma/\sqrt{N}$. See note.
[4] Number of events in peak reevaluated by us.
[5] From pole extrapolation.

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

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

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

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

$m_{K^*(892)^0} - m_{K^*(892)^\pm}$

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 $\bar{p}p \to K^\mp K^0_S \pi^\pm$
5.7±1.7	7338	AGUILAR-... 71B	HBC	−0	3.9,4.6 $K^- p$
6.3±4.1	283	[6] BARASH 67B	HBC		0.0 $\bar{p}p$

[6] Number of events in peak reevaluated by us.

$K^*(892)$ RANGE PARAMETER

All from partial wave amplitude analyses.

VALUE (GeV^{-1})	DOCUMENT ID	TECN	CHG	COMMENT
12.1±3.2±3.0	BIRD 89	LASS	−	11 $K^- p \to \overline{K}^0 \pi^- p$
3.4±0.7	ASTON 88	LASS	0	11 $K^- p \to K^- \pi^+ n$

$K^*(892)$ WIDTH

CHARGED ONLY

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
49.8±0.8 OUR FIT					
49.8±0.8 OUR AVERAGE					
45.2±1 ±2	79709±801	[7] BIRD 89	LASS	−	11 $K^- p \to \overline{K}^0 \pi^- p$
49.0±2.0	5840	BAUBILLIER 84B	HBC	−	8.25 $K^- p \to \overline{K}^0 \pi^- p$
56.0±4.0		NAPIER 84	SPEC	−	200 $\pi^- p \to 2K^0_S X$
51.0±2.0	4100	TOAFF 81	HBC	−	6.5 $K^- p \to \overline{K}^0 \pi^- p$
50.5±5.6		AJINENKO 80	HBC	+	32 $K^+ p \to K^0 \pi^+ X$
45.8±3.6	1800	AGUILAR-... 78B	HBC	±	0.76 $\bar{p}p \to K^\mp K^0_S \pi^\pm$
52.0±2.5	6706	[8] COOPER 78	HBC	±	0.76 $\bar{p}p \to (K\pi)^\pm X$
52.1±2.2	9000	[9] PALER 75	HBC	−	14.3 $K^- p \to (K\pi)^- X$
46.3±6.7	765	[8] CLARK 73	HBC	−	3.13 $K^- p \to \overline{K}^0 \pi^- p$
48.2±5.7	1150	[8,10] CLARK 73	HBC	−	3.3 $K^- p \to \overline{K}^0 \pi^- p$
54.3±3.3	4404	[8] AGUILAR-... 71B	HBC	−	3.9,4.6 $K^- p \to (K\pi)^- p$
53 ±4.0	2886	[8] FRIEDMAN 69	HBC	−	2.1 $K^- p \to \overline{K}^0 \pi^- p$
49 ±7.3	728	[8] FRIEDMAN 69	HBC	−	2.45 $K^- p \to \overline{K}^0 \pi^- p$
46 ±3.2	3229	[8] FRIEDMAN 69	HBC	−	2.6 $K^- p \to \overline{K}^0 \pi^- p$
49 ±6.1	1027	[8] FRIEDMAN 69	HBC	−	2.7 $K^- p \to \overline{K}^0 \pi^- p$
46.0±5.0	1700	[8,10] WOJCICKI 64	HBC	−	1.7 $K^- p \to \overline{K}^0 \pi^- p$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
42.8±7.1	3700	BARTH 83	HBC	+	70 $K^+ p \to K^0 \pi^+ X$
64.0±9.2	800	[8,10] CLELAND 82	SPEC	+	30 $K^+ p \to K^0_S \pi^+ p$
62.0±4.4	3200	[8,10] CLELAND 82	SPEC	+	50 $K^+ p \to K^0_S \pi^+ p$
55.0±4.0	3600	[8,10] CLELAND 82	SPEC	−	50 $K^+ p \to K^0_S \pi^- p$
62.6±3.8	380	DELFOSSE 81	SPEC	+	50 $K^\pm p \to K^\pm \pi^0 p$
50.5±3.9	187	DELFOSSE 81	SPEC	−	50 $K^\pm p \to K^\pm \pi^0 p$

NEUTRAL ONLY

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
50.5±0.6 OUR FIT Error includes scale factor of 1.1.					
50.5±0.6 OUR AVERAGE Error includes scale factor of 1.1.					
50.8±0.8±0.9		ASTON 88	LASS	0	11 $K^- p \to K^- \pi^+ n$
46.5±4.3	5900	BARTH 83	HBC	0	70 $K^+ p \to K^+ \pi^- X$
54 ±2	28k	EVANGELISTA 80	OMEG	0	10 $\pi^- p \to K^+ \pi^- (\Lambda, \Sigma)$
45.9±4.8	1180	AGUILAR-... 78B	HBC	0	0.76 $\bar{p}p \to K^\mp K^0_S \pi^\pm$
51.2±1.7		WICKLUND 78	ASPK	0	3,4,6 $K^\pm N \to (K\pi)^0 N$
48.9±2.5		BOWLER 77	DBC	0	5.4 $K^+ d \to K^+ \pi^- pp$
48 $^{+3}_{-2}$	3600	MCCUBBIN 75	HBC	0	3.6 $K^- p \to K^- \pi^+ n$
50.6±2.5	22k	[9] PALER 75	HBC	0	14.3 $K^- p \to (K\pi)^0 X$
47 ±2	10k	FOX 74	RVUE	0	2 $K^- p \to K^- \pi^+ n$
51 ±2		FOX 74	RVUE	0	2 $K^+ n \to K^+ \pi^- p$
46.0±3.3	3186	[8] LEWIS 73	HBC	0	2.1–2.7 $K^+ p \to K \pi \pi p$
51.4±5.0	1700	[8] BUCHNER 72	DBC	0	4.6 $K^+ n \to K^+ \pi^- p$
55.8 $^{+4.2}_{-3.4}$	2934	[8] AGUILAR-... 71B	HBC	0	3.9,4.6 $K^- p \to K^- \pi^+ n$
48.5±2.7	5362	AGUILAR-... 71B	HBC	0	3.9,4.6 $K^- p \to K^- \pi^+ \pi^- p$
54.0±3.3	4300	[8,10] HABER 70	DBC	0	3 $K^- N \to K^- \pi^+ X$
53.2±2.1	10k	[8] DAVIS 69	HBC	0	12 $K^+ p \to K^+ \pi^- \pi^+ p$
44 ±5.5	1040	[8] DAUBER 67B	HBC	0	2.0 $K^- p \to K^- \pi^+ \pi^- p$

[7] From a partial wave amplitude analysis.
[8] Width errors enlarged by us to $4 \times \Gamma/\sqrt{N}$; see note.
[9] Inclusive reaction. Complicated background and phase-space effects.
[10] Number of events in peak reevaluated by us.

$K^*(892)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)	Confidence level
Γ_1	$K\pi$	$\sim$ 100 %	
Γ_2	$(K\pi)^\pm$	(99.899±0.009) %	
Γ_3	$(K\pi)^0$	(99.770±0.020) %	
Γ_4	$K^0\gamma$	(2.30 ±0.20) $\times 10^{-3}$	
Γ_5	$K^\pm\gamma$	(1.01 ±0.09) $\times 10^{-3}$	
Γ_6	$K\pi\pi$	$<$ 7 $\times 10^{-4}$	95%