# $K^*(1410)$

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

## $K^*(1410)$ MASS

| VALUE (MeV) | DOCUMENT ID | | TECN | CHG | COMMENT |
|---|---|---|---|---|---|
| **1414±15 OUR AVERAGE** | Error includes scale factor of 1.3. | | | | |
| 1380±21±19 | ASTON | 88 | LASS | 0 | 11 $K^- p \to K^- \pi^+ n$ |
| 1420± 7±10 | ASTON | 87 | LASS | 0 | 11 $K^- p \to \overline{K}^0 \pi^+ \pi^- n$ |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | | |
| 1367±54 | BIRD | 89 | LASS | – | 11 $K^- p \to \overline{K}^0 \pi^- p$ |
| 1474±25 | BAUBILLIER | 82B | HBC | 0 | 8.25 $K^- p \to \overline{K}^0 2\pi n$ |
| 1500±30 | ETKIN | 80 | MPS | 0 | 6 $K^- p \to \overline{K}^0 \pi^+ \pi^- n$ |

## $K^*(1410)$ WIDTH

| VALUE (MeV) | DOCUMENT ID | | TECN | CHG | COMMENT |
|---|---|---|---|---|---|
| **232± 21 OUR AVERAGE** | Error includes scale factor of 1.1. | | | | |
| 176± 52±22 | ASTON | 88 | LASS | 0 | 11 $K^- p \to K^- \pi^+ n$ |
| 240± 18±12 | ASTON | 87 | LASS | 0 | 11 $K^- p \to \overline{K}^0 \pi^+ \pi^- n$ |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | | |
| 114±101 | BIRD | 89 | LASS | – | 11 $K^- p \to \overline{K}^0 \pi^- p$ |
| 275± 65 | BAUBILLIER | 82B | HBC | 0 | 8.25 $K^- p \to \overline{K}^0 2\pi n$ |
| 500±100 | ETKIN | 80 | MPS | 0 | 6 $K^- p \to \overline{K}^0 \pi^+ \pi^- n$ |

## $K^*(1410)$ DECAY MODES

| | Mode | Fraction ($\Gamma_i/\Gamma$) | Confidence level |
|---|---|---|---|
| $\Gamma_1$ | $K^*(892)\pi$ | $> 40$ % | 95% |
| $\Gamma_2$ | $K\pi$ | ( 6.6±1.3) % | |
| $\Gamma_3$ | $K\rho$ | $< 7$ % | 95% |

## $K^*(1410)$ BRANCHING RATIOS

### $\Gamma(K\rho)/\Gamma(K^*(892)\pi)$ — $\Gamma_3/\Gamma_1$

| VALUE | CL% | DOCUMENT ID | | TECN | CHG | COMMENT |
|---|---|---|---|---|---|---|
| <0.17 | 95 | ASTON | 84 | LASS | 0 | 11 $K^- p \to \overline{K}^0 2\pi n$ |

### $\Gamma(K\pi)/\Gamma(K^*(892)\pi)$ — $\Gamma_2/\Gamma_1$

| VALUE | CL% | DOCUMENT ID | | TECN | CHG | COMMENT |
|---|---|---|---|---|---|---|
| <0.16 | 95 | ASTON | 84 | LASS | 0 | 11 $K^- p \to \overline{K}^0 2\pi n$ |

### $\Gamma(K\pi)/\Gamma_{total}$ — $\Gamma_2/\Gamma$

| VALUE | DOCUMENT ID | | TECN | CHG | COMMENT |
|---|---|---|---|---|---|
| **0.066±0.010±0.008** | ASTON | 88 | LASS | 0 | 11 $K^- p \to K^- \pi^+ n$ |

## $K^*(1410)$ REFERENCES


| | | | | |
|---|---|---|---|---|
| BIRD | 89 | SLAC-332 | P.F. Bird | (SLAC) |
| ASTON | 88 | NP B296 493 | D. Aston *et al.* | (SLAC, NAGO, CINC, INUS) |
| ASTON | 87 | NP B292 693 | D. Aston *et al.* | (SLAC, NAGO, CINC, INUS) |
| ASTON | 84 | PL 149B 258 | D. Aston *et al.* | (SLAC, CARL, OTTA) JP |
| BAUBILLIER | 82B | NP B202 21 | M. Baubillier *et al.* | (BIRM, CERN, GLAS+) |
| ETKIN | 80 | PR D22 42 | A. Etkin *et al.* | (BNL, CUNY) JP |