

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 $K^- p \rightarrow K^- \pi^+ n$ |
| 1420 ± 7 ± 10 | ASTON | 87 | LASS | 0 11 $K^- p \rightarrow \bar{K}^0 \pi^+ \pi^- n$ |
| ● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ● | | | | |
| 1367 ± 54 | BIRD | 89 | LASS | - 11 $K^- p \rightarrow \bar{K}^0 \pi^- p$ |
| 1474 ± 25 | BAUBILLIER | 82B | HBC | 0 8.25 $K^- p \rightarrow \bar{K}^0 2\pi n$ |
| 1500 ± 30 | ETKIN | 80 | MPS | 0 6 $K^- p \rightarrow \bar{K}^0 \pi^+ \pi^- n$ |

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 $K^- p \rightarrow K^- \pi^+ n$ |
| 240 ± 18 ± 12 | ASTON | 87 | LASS | 0 11 $K^- p \rightarrow \bar{K}^0 \pi^+ \pi^- n$ |
| ● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ● | | | | |
| 114 ± 101 | BIRD | 89 | LASS | - 11 $K^- p \rightarrow \bar{K}^0 \pi^- p$ |
| 275 ± 65 | BAUBILLIER | 82B | HBC | 0 8.25 $K^- p \rightarrow \bar{K}^0 2\pi n$ |
| 500 ± 100 | ETKIN | 80 | MPS | 0 6 $K^- p \rightarrow \bar{K}^0 \pi^+ \pi^- n$ |

K*(1410) DECAY MODES

| Mode | Fraction (Γ_i/Γ) | Confidence level |
|--------------------------|--------------------------------|------------------|
| Γ_1 $K^*(892)\pi$ | > 40 % | 95% |
| Γ_2 $K\pi$ | (6.6 ± 1.3) % | |
| Γ_3 $K\rho$ | < 7 % | 95% |
| Γ_4 γK^0 | seen | |

K*(1410) PARTIAL WIDTHS

| $\Gamma(\gamma K^0)$ | | | | Γ_4 |
|----------------------|-----|-----------------|------|-----------------------------|
| VALUE (keV) | CL% | DOCUMENT ID | TECN | COMMENT |
| <52.9 | 90 | ALAVI-HARATI02B | KTEV | $K + A \rightarrow K^* + A$ |

K*(1410) BRANCHING RATIOS

| $\Gamma(K\rho)/\Gamma(K^*(892)\pi)$ | | | | | Γ_3/Γ_1 |
|-------------------------------------|-----|-------------|------|------|---|
| VALUE | CL% | DOCUMENT ID | TECN | CHG | COMMENT |
| <0.17 | 95 | ASTON | 84 | LASS | 0 11 $K^- p \rightarrow \bar{K}^0 2\pi n$ |

| $\Gamma(K\pi)/\Gamma(K^*(892)\pi)$ | | | | | | Γ_2/Γ_1 |
|------------------------------------|------------|--------------------|-------------|------------|----------------|---|
| <u>VALUE</u> | <u>CL%</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>CHG</u> | <u>COMMENT</u> | |
| <0.16 | 95 | ASTON | 84 | LASS | 0 | 11 $K^- p \rightarrow \bar{K}^0 2\pi n$ |

| $\Gamma(K\pi)/\Gamma_{\text{total}}$ | | | | | | Γ_2/Γ |
|--------------------------------------|--|--------------------|-------------|------------|----------------|------------------------------------|
| <u>VALUE</u> | | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>CHG</u> | <u>COMMENT</u> | |
| 0.066±0.010±0.008 | | ASTON | 88 | LASS | 0 | 11 $K^- p \rightarrow K^- \pi^+ n$ |

$K^*(1410)$ REFERENCES

| | | | |
|------------------|---------------|-------------------------------|--------------------------|
| ALAVI-HARATI 02B | PRL 89 072001 | A. Alavi-Harati <i>et al.</i> | (FNAL KTeV Collab.) |
| BIRD 89 | SLAC-332 | P.F. Bird | (SLAC) |
| ASTON 88 | NP B296 493 | D. Aston <i>et al.</i> | (SLAC, NAGO, CINC, INUS) |
| ASTON 87 | NP B292 693 | D. Aston <i>et al.</i> | (SLAC, NAGO, CINC, INUS) |
| ASTON 84 | PL 149B 258 | D. Aston <i>et al.</i> | (SLAC, CARL, OTTA) JP |
| BAUBILLIER 82B | NP B202 21 | M. Baubillier <i>et al.</i> | (BIRM, CERN, GLAS+) |
| ETKIN 80 | PR D22 42 | A. Etkin <i>et al.</i> | (BNL, CUNY) JP |