# $K_0^*(800)$ or $\kappa$

$I(J^P) = \frac{1}{2}(0^+)$

OMITTED FROM SUMMARY TABLE

The existence of this state is controversial.

## $K_0^*(800)$ MASS

| *VALUE* (MeV) | *EVTS* | *DOCUMENT ID* | | *TECN* | *COMMENT* |
|---|---|---|---|---|---|
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | | |
| $722 \pm 60$ | | [1] BUGG | 03 | RVUE | 11 $K^- p \to K^- \pi^+ n$ |
| $797 \pm 19 \pm 43$ | 15090 | [2] AITALA | 02 | E791 | $D^+ \to K^- \pi^+ \pi^+$ |
| $905^{+65}_{-30}$ | | [3] ISHIDA | 97B | RVUE | 11 $K^- p \to K^- \pi^+ n$ |

[1] T-matrix pole. Reanalysis of ASTON 88 data.

[2] Not seen by KOPP 01 using 7070 events of $D^0 \to K^- \pi^+ \pi^0$. Possibly seen by LINK 02E in $D^+ \to K^- \pi^+ \mu^+ \nu_\mu$.

[3] Reanalysis of ASTON 88 using interfering Breit-Wigner amplitudes.

## $K_0^*(800)$ WIDTH

| *VALUE* (MeV) | *EVTS* | *DOCUMENT ID* | | *TECN* | *COMMENT* |
|---|---|---|---|---|---|
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | | |
| $772 \pm 100$ | | [4] BUGG | 03 | RVUE | 11 $K^- p \to K^- \pi^+ n$ |
| $410 \pm 43 \pm 87$ | 15090 | [5] AITALA | 02 | E791 | $D^+ \to K^- \pi^+ \pi^+$ |
| $545^{+235}_{-110}$ | | [6] ISHIDA | 97B | RVUE | 11 $K^- p \to K^- \pi^+ n$ |

[4] T-matrix pole. Reanalysis of ASTON 88 data.

[5] Not seen by KOPP 01 using 7070 events of $D^0 \to K^- \pi^+ \pi^0$. Possibly seen by LINK 02E in $D^+ \to K^- \pi^+ \mu^+ \nu_\mu$.

[6] Reanalysis of ASTON 88 using interfering Breit-Wigner amplitudes.

## $K_0^*(800)$ REFERENCES


| | | | | |
|---|---|---|---|---|
| BUGG | 03 | PL B572 1 | D.V. Bugg | |
| AITALA | 02 | PRL 89 121801 | E.M. Aitala *et al.* | (FNAL E791 Collab.) |
| LINK | 02E | PL B535 43 | J.M. Link *et al.* | (FNAL FOCUS Collab.) |
| KOPP | 01 | PR D63 092001 | S. Kopp *et al.* | (CLEO Collab.) |
| ISHIDA | 97B | PTP 98 621 | S. Ishida *et al.* | |
| ASTON | 88 | NP B296 493 | D. Aston *et al.* | (SLAC, NAGO, CINC, INUS) |


## OTHER RELATED PAPERS


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|---|---|---|---|
| SEMENOV | 03 | PAN 66 526<br>Translated from YAF 66 553. | S.V. Semenov |
| BEVEREN | 01B | EPJ C22 493 | E. van Beveren |