# $X(3940)$

$I^G(J^{PC}) = ?^?(?^{??})$

OMITTED FROM SUMMARY TABLE

Reported by ABE 07, observed in $e^+ e^- \rightarrow J/\psi X$.

## $X(3940)$ MASS

| VALUE (MeV) | EVTS | DOCUMENT ID | | TECN | COMMENT |
|---|---|---|---|---|---|
| **3943± 6±6** | 25 | [1] ABE | 07 | BELL | $e^+ e^- \rightarrow J/\psi X$ |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | | |
| 3936±14 | 266 | [2] ABE | 07 | BELL | $e^+ e^- \rightarrow J/\psi (c\overline{c})$ |

[1] From a fit to $D^{*+} D^-$ and $D^{*0} \overline{D}^0$ events.
[2] From the inclusive fit. Not independent of the exclusive measurement by ABE 07.

## $X(3940)$ WIDTH

| VALUE (MeV) | CL% | EVTS | DOCUMENT ID | | TECN | COMMENT |
|---|---|---|---|---|---|---|
| **<52** | 90 | 25 | ABE | 07 | BELL | $e^+ e^- \rightarrow J/\psi X$ |

## $X(3940)$ DECAY MODES

| | Mode | Fraction ($\Gamma_i/\Gamma$) | Confidence level |
|---|---|---|---|
| $\Gamma_1$ | $D\overline{D}^*$ | >45 % | 90% |
| $\Gamma_2$ | $D\overline{D}$ | <41 % | 90% |
| $\Gamma_3$ | $J/\psi\omega$ | <26 % | 90% |

## $X(3940)$ BRANCHING RATIOS

### $\Gamma(D\overline{D}^*)/\Gamma_{\text{total}}$ — $\Gamma_1/\Gamma$

| VALUE | CL% | EVTS | DOCUMENT ID | | TECN | COMMENT |
|---|---|---|---|---|---|---|
| **>0.45** | 90 | 25 | [3] ABE | 07 | BELL | $e^+ e^- \rightarrow J/\psi X$ |

[3] For $X(3940)$ decaying to final states with more than two tracks.

### $\Gamma(D\overline{D})/\Gamma_{\text{total}}$ — $\Gamma_2/\Gamma$

| VALUE | CL% | DOCUMENT ID | | TECN | COMMENT |
|---|---|---|---|---|---|
| **<0.41** | 90 | [4] ABE | 07 | BELL | $e^+ e^- \rightarrow J/\psi X$ |

[4] For $X(3940)$ decaying to final states with more than two tracks.

### $\Gamma(J/\psi\omega)/\Gamma_{\text{total}}$ — $\Gamma_3/\Gamma$

| VALUE | CL% | DOCUMENT ID | | TECN | COMMENT |
|---|---|---|---|---|---|
| **<0.26** | 90 | [5] ABE | 07 | BELL | $e^+ e^- \rightarrow J/\psi X$ |

[5] For $X(3940)$ decaying to final states with more than two tracks.

## $X(3940)$ REFERENCES

ABE 07 PRL 98 082001 K. Abe et al. (BELLE Collab.)