NODE=M043

# $X(2000)$

$I^G(J^{PC}) = 1^-(?^{?+})$

OMITTED FROM SUMMARY TABLE

BALTAY 77 favors $J^P = 3^+$. Needs confirmation. NODE=M043

## $X(2000)$ MASS

NODE=M043205

| VALUE (MeV) | EVTS | DOCUMENT ID | | TECN | CHG | COMMENT |
|---|---|---|---|---|---|---|
| NODE=M043M1 | | | | | | |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | | | |
| 1964±35 | | [1] ARMSTRONG | 93D | E760 | | $\overline{p}p \to 3\pi^0 \to 6\gamma$ |
| ~ 2100 | | [1] ANTIPOV | 77 | CIBS | − | 25 $\pi^- p \to p\pi^- \rho_3$ |
| 2214±15 | | BALTAY | 77 | HBC | 0 | 15 $\pi^- p \to \Delta^{++} 3\pi$ |
| 2080±40 | 208 | KALELKAR | 75 | HBC | + | 15 $\pi^+ p \to p\pi^+ \rho_3$ |

[1] Cannot determine spin to be 3. NODE=M043M1;LINKAGE=A

## $X(2000)$ WIDTH

NODE=M043210

| VALUE (MeV) | EVTS | DOCUMENT ID | | TECN | CHG | COMMENT |
|---|---|---|---|---|---|---|
| NODE=M043W1 | | | | | | |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | | | |
| 225±50 | | [2] ARMSTRONG | 93D | E760 | | $\overline{p}p \to 3\pi^0 \to 6\gamma$ |
| ~ 500 | | [2] ANTIPOV | 77 | CIBS | − | 25 $\pi^- p \to p\pi^- \rho_3$ |
| 355±21 | | BALTAY | 77 | HBC | 0 | 15 $\pi^- p \to \Delta^{++} 3\pi$ |
| 340±80 | 208 | KALELKAR | 75 | HBC | + | 15 $\pi^+ p \to p\pi^+ \rho_3$ |

[2] Cannot determine spin to be 3. NODE=M043W1;LINKAGE=A

## $X(2000)$ DECAY MODES

NODE=M043215;NODE=M043

| | Mode | Fraction ($\Gamma_i/\Gamma$) | |
|---|---|---|---|
| $\Gamma_1$ | $3\pi$ | | DESIG=1 |
| $\Gamma_2$ | $\rho_3(1690)\pi$ | dominant | DESIG=2;OUR EST;→ NOT CHECKED ← |

## $X(2000)$ BRANCHING RATIOS

NODE=M043220

**$\Gamma(\rho_3(1690)\pi)/\Gamma(3\pi)$** **$\Gamma_2/\Gamma_1$**

NODE=M043R1

| VALUE | DOCUMENT ID | | TECN | CHG | COMMENT |
|---|---|---|---|---|---|
| NODE=M043R1 | | | | | |
| **dominant** | KALELKAR | 75 | HBC | + | 15 $\pi^+ p \to p3\pi$ |

## $X(2000)$ REFERENCES

NODE=M043


| | | | | | |
|---|---|---|---|---|---|
| ARMSTRONG | 93D | PL B307 399 | T.A. Armstrong *et al.* | (FNAL, FERR, GENO+) | REFID=43596 |
| ANTIPOV | 77 | NP B119 45 | Y.M. Antipov *et al.* | (SERP, GEVA) | REFID=20728 |
| BALTAY | 77 | PRL 39 591 | C. Baltay, C.V. Cautis, M. Kalelkar | (COLU) JP | REFID=20847 |
| KALELKAR | 75 | Thesis Nevis 207 | M.S. Kalelkar | (COLU) | REFID=21564 |


### OTHER RELATED PAPERS


| | | | | | |
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| HARRIS | 81 | ZPHY C9 275 | R.M. Harris *et al.* | (SEAT, UCB) | REFID=21800 |
| HUSON | 68 | PL 28B 208 | R. Huson *et al.* | (ORSAY, MILA, UCLA) | REFID=20062 |
| DANYSZ | 67B | NC 51A 801 | J.A. Danysz, B.R. French, V. Simak | (CERN) | REFID=20045 |