

# $\pi_2(2100)$

$$I^G(J^{PC}) = 1^-(2^-+)$$

OMITTED FROM SUMMARY TABLE

Needs confirmation.

## $\pi_2(2100)$ MASS

| <u>VALUE (MeV)</u>           | <u>DOCUMENT ID</u>  | <u>TECN</u> | <u>COMMENT</u>                               |
|------------------------------|---------------------|-------------|--|
| <b>2090 ± 29 OUR AVERAGE</b> |                     |             |  |
| 2090 ± 30                    | <sup>1</sup> AMELIN | 95B VES     | 36 $\pi^- A \rightarrow \pi^+ \pi^- \pi^- A$ |
| 2100 ± 150                   | <sup>2</sup> DAUM   | 81B CNTR    | 63,94 $\pi^- p \rightarrow 3\pi X$           |

<sup>1</sup> From a fit to  $J^{PC} = 2^-+ f_2(1270)\pi, (\pi\pi)_S\pi$  waves.

<sup>2</sup> From a two-resonance fit to four  $2^-0^+$  waves.

## $\pi_2(2100)$ WIDTH

| <u>VALUE (MeV)</u>  | <u>DOCUMENT ID</u>  | <u>TECN</u> | <u>COMMENT</u>                               |
|---|---------------------|-------------|--|
| <b>625 ± 50 OUR AVERAGE</b> Error includes scale factor of 1.2. |                     |             |  |
| 520 ± 100   | <sup>3</sup> AMELIN | 95B VES     | 36 $\pi^- A \rightarrow \pi^+ \pi^- \pi^- A$ |
| 651 ± 50  | <sup>4</sup> DAUM   | 81B CNTR    | 63,94 $\pi^- p \rightarrow 3\pi X$           |

<sup>3</sup> From a fit to  $J^{PC} = 2^-+ f_2(1270)\pi, (\pi\pi)_S\pi$  waves.

<sup>4</sup> From a two-resonance fit to four  $2^-0^+$  waves.

## $\pi_2(2100)$ DECAY MODES

| Mode                       | Fraction ( $\Gamma_i/\Gamma$ ) |
|----------------------------|--------------------------------|
| $\Gamma_1$ $3\pi$          | seen                           |
| $\Gamma_2$ $\rho\pi$       | seen                           |
| $\Gamma_3$ $f_2(1270)\pi$  | seen                           |
| $\Gamma_4$ $(\pi\pi)_S\pi$ | seen                           |

## $\pi_2(2100)$ BRANCHING RATIOS

|  |   |
|--|---|
| <b><math>\Gamma(\rho\pi)/\Gamma(3\pi)</math></b>       | <b><math>\Gamma_2/\Gamma_1</math></b>         |
| <u>VALUE</u>   | <u>DOCUMENT ID</u> <u>TECN</u> <u>COMMENT</u> |
| <b>0.19 ± 0.05</b>                                     | <sup>5</sup> DAUM 81B CNTR 63,94 $\pi^- p$    |
| <b><math>\Gamma(f_2(1270)\pi)/\Gamma(3\pi)</math></b>  | <b><math>\Gamma_3/\Gamma_1</math></b>         |
| <u>VALUE</u>   | <u>DOCUMENT ID</u> <u>TECN</u> <u>COMMENT</u> |
| <b>0.36 ± 0.09</b>                                     | <sup>5</sup> DAUM 81B CNTR 63,94 $\pi^- p$    |
| <b><math>\Gamma((\pi\pi)_S\pi)/\Gamma(3\pi)</math></b> | <b><math>\Gamma_4/\Gamma_1</math></b>         |
| <u>VALUE</u>   | <u>DOCUMENT ID</u> <u>TECN</u> <u>COMMENT</u> |
| <b>0.45 ± 0.07</b>                                     | <sup>5</sup> DAUM 81B CNTR 63,94 $\pi^- p$    |

### **D-wave/S-wave RATIO FOR $\pi_2(2100) \rightarrow f_2(1270)\pi$**

| <u>VALUE</u>                      | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u>  |
|-----------------------------------|--------------------|-------------|-----------------|
| <b><math>0.39 \pm 0.23</math></b> | <sup>5</sup> DAUM  | 81B CNTR    | 63,94 $\pi^- p$ |

<sup>5</sup> From a two-resonance fit to four  $2^-0^+$  waves.

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### **$\pi_2(2100)$ REFERENCES**

|        |                 |                           |                           |
|--------|-----------------|---------------------------|---------------------------|
| AMELIN | 95B PL B356 595 | D.V. Amelin <i>et al.</i> | (SERP, TBIL)              |
| DAUM   | 81B NP B182 269 | C. Daum <i>et al.</i>     | (AMST, CERN, CRAC, MPIM+) |

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