

$\Omega_c(3120)^0$

$I(J^P) = ?(?^?)$  Status: \*\*\*

### $\Omega_c(3120)^0$ MASS

| VALUE (MeV)                                 | EVTs | DOCUMENT ID       | TECN      | COMMENT              |
|---------------------------------------------|------|-------------------|-----------|----------------------|
| $3118.98 \pm 0.12^{+0.09}_{-0.23} \pm 0.23$ | 3.7k | <sup>1</sup> AAIJ | 23AS LHCB | $pp$ at 7, 8, 13 TeV |

• • • We do not use the following data for averages, fits, limits, etc. • • •

|                                  |     |                     |           |                      |
|----------------------------------|-----|---------------------|-----------|----------------------|
| $3119.1 \pm 0.3 \pm 0.9 \pm 0.3$ | 480 | <sup>2,3</sup> AAIJ | 17AH LHCB | $pp$ at 7, 8, 13 TeV |
|----------------------------------|-----|---------------------|-----------|----------------------|

<sup>1</sup> The third uncertainty is due to the uncertainty in the  $\Xi_c^+$  mass, taken to be the PDG 22 fit result  $2467.71 \pm 0.23$  MeV.

<sup>2</sup> The third error is the uncertainty on the  $\Xi_c^+$  mass. (AAIJ 17AH gave  $+0.3_{-0.5}$  MeV here, but as of 2018 it is  $\pm 0.3$ .)

<sup>3</sup> See AAIJ 23AS.

### $\Omega_c(3120)^0$ WIDTH

| VALUE (MeV) | CL% | EVTs | DOCUMENT ID       | TECN      | COMMENT              |
|-------------|-----|------|-------------------|-----------|----------------------|
| $< 2.5$     | 95  | 3.7k | <sup>1</sup> AAIJ | 23AS LHCB | $pp$ at 7, 8, 13 TeV |

• • • We do not use the following data for averages, fits, limits, etc. • • •

|         |    |     |                   |           |                      |
|---------|----|-----|-------------------|-----------|----------------------|
| $< 2.6$ | 95 | 480 | <sup>2</sup> AAIJ | 17AH LHCB | $pp$ at 7, 8, 13 TeV |
|---------|----|-----|-------------------|-----------|----------------------|

<sup>1</sup> AAIJ 23AS also report a central value of  $0.60 \pm 0.63^{+0.90}_{-1.05}$ .

<sup>2</sup> See AAIJ 23AS.

### $\Omega_c(3120)^0$ DECAY MODES

| Mode                         | Fraction ( $\Gamma_i/\Gamma$ ) |
|------------------------------|--------------------------------|
| $\Gamma_1 \quad \Xi_c^+ K^-$ | seen                           |

### $\Omega_c(3120)^0$ BRANCHING RATIOS

$\Gamma(\Xi_c^+ K^-)/\Gamma_{\text{total}}$   $\Gamma_1/\Gamma$

| VALUE | EVTs | DOCUMENT ID | TECN      | COMMENT              |
|-------|------|-------------|-----------|----------------------|
| seen  | 3.7k | AAIJ        | 23AS LHCB | $pp$ at 7, 8, 13 TeV |

• • • We do not use the following data for averages, fits, limits, etc. • • •

|      |     |                     |           |                      |
|------|-----|---------------------|-----------|----------------------|
| seen | 480 | <sup>1,2</sup> AAIJ | 17AH LHCB | $pp$ at 7, 8, 13 TeV |
|------|-----|---------------------|-----------|----------------------|

<sup>1</sup> AAIJ 17AH report a significance of  $10.4 \sigma$ .

<sup>2</sup> See AAIJ 23AS.

### $\Omega_c(3120)^0$ REFERENCES

|      |      |                  |                            |                |
|------|------|------------------|----------------------------|----------------|
| AAIJ | 23AS | PRL 131 131902   | R. Aaij <i>et al.</i>      | (LHCb Collab.) |
| PDG  | 22   | PTEP 2022 083C01 | R.L. Workman <i>et al.</i> | (PDG Collab.)  |
| AAIJ | 17AH | PRL 118 182001   | R. Aaij <i>et al.</i>      | (LHCb Collab.) |