Contribution ID: **177** Type: **Poster**

Ω_c^0 production in pp collisions at $\sqrt{s}$ = 13 TeV with ALICE

Tuesday 5 September 2023 17:30 (2h 10m)

Recent measurements of the production of charm hadrons at midrapidity in pp collisions at $\sqrt{s}$ = 5.02 and 13 TeV showed that the baryon-to-meson yield ratios are significantly larger than those measured in e^+e^- collisions for different charm-baryon species. These observations suggest that the charm fragmentation fractions are not universal and that the baryon-to-meson ratios depend on the collision systems.

In this poster, the new measurement of the inclusive p_T-differential cross section of the charm-strange baryon Ω_c^0 multiplied by the branching ratio of the $\Omega_c^0 \rightarrow {}^-\pi^+$ decay channel in pp collisions at $\sqrt{s}$ = 13 TeV will be reported, and compared with theoretical calculations.

However, the lack of absolute measurements of the Ω_c^0 branching ratios makes it difficult to draw conclusions about the effective Ω_c^0 enhancement. To address this, a new analysis of the Ω_c^0 reconstructed from the $e^+ {}^-\nu_e$ decay channel is being performed, and its status and developments will be also discussed.

Category

Experiment

Collaboration (if applicable)

ALICE Collaboration

Primary author: CHENG, Tiantian (CCNU - Central China Normal University(CN), GSI - Helmholtzzentrum fur Schwerionenforschung GmbH(DE))

Presenter: CHENG, Tiantian (CCNU - Central China Normal University(CN), GSI - Helmholtzzentrum fur Schwerionenforschung GmbH(DE))

Session Classification: Poster Session

Track Classification: Heavy Flavor