Contribution ID: **854** Type: **Parallel session talk**

Investigation of charm-quark hadronisation in proton–proton collisions with ALICE

Friday 19 July 2024 10:45 (15 minutes)

Measurements of charm-strange meson and charm-baryon production in pp and heavy-ion collisions at the LHC are fundamental to investigate the charm-quark hadronisation across collision systems.

In this contribution, the final results of the ALICE Collaboration on the production of strange ($\mathrm{D_s}^+$, $\Xi_\mathrm{c}^{0,+}$, Ω_c^0) and non-strange (D^0 , D^+, D^{*+} , Λ_c^+, $\Sigma_\mathrm{c}^{0,+,++}$) charm hadrons in pp, p–Pb and Pb–Pb collisions collected in Run 2 by the ALICE experiment are shown. The production measurements of $\mathrm{D_s}^+$ mesons are compared to those of non-strange mesons, and the comparison between the measured baryon-to-meson ratios with novel theoretical calculations will be discussed. To conclude, the first studies of charm-hadron reconstruction using the large data sample of pp collisions at $\sqrt{s}$= 13.6 TeV harvested from the start of LHC Run 3 are presented.

Alternate track

I read the instructions above

Yes

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