Contribution ID: **653** Type: **Poster**

Deciphering the Hadronic Phase through Resonance Production in ALICE Run 3 pp Collision

The study of hadronic resonances provides valuable information about the final state interactions and the system evolution in ultra-relativistic nuclear collisions. Due to their short lifespan, comparable with the duration of the hadronic phase, resonances can be affected by the competing rescattering and regeneration mechanisms. In particular, their decay daughters interact elastically/pseudo-elastically with other hadrons, altering their transverse momentum (p_T) distributions and affecting the measured resonance yields. Measurements of their yield ratios to stable hadron yields provide valuable insight about hadronic phase lifetime. The ALICE experiment in the LHC Run 3 is suited for resonance measurements because of its excellent tracking and PID capabilities over a broad momentum range.

In this contribution, we present the new ALICE results on resonance production at midrapidity using the hadronic decay channels for LHC Run 3 pp data collected with the upgraded ALICE detector, making use of the higher statistics compared to previous data-taking periods, which may offer new perspectives on the underlying dynamics in the hadronic phase.

Secondary track

Author: KOLEY, Hirak Kumar (Jadavpur University)

Presenter: KOLEY, Hirak Kumar (Jadavpur University)

Session Classification: Poster T05

Track Classification: T05 - QCD and Hadronic Physics