Contribution ID: **468** Type: **Parallel session talk**

Particle production as a function of charged-particle flattenicity in small collision systems with ALICE

Friday 19 July 2024 08:30 (15 minutes)

Event classifiers based on the charged-particle multiplicity have been extensively used in pp collisions at the LHC. However, one drawback of the multiplicity-based event classifiers is that requiring a high charged-particle multiplicity biases the sample towards hard processes. These biases blur the effects of multi-parton interactions (MPI) and make it difficult to pinpoint the origins of fluid-like effects in small systems.

This contribution exploits a new event classifier, the charged-particle flattenicity, defined in ALICE using the charged-particle multiplicity estimated in $2.8 < \eta < 5.1$ and $-3.7 < \eta < -1.7$ intervals. New final results on the production of identified and unidentified charged particles as a function of flattenicity in pp collisions at $\sqrt{s}$ = 13 TeV will be discussed. It will be shown how flattenicity can be used to select events more sensitive to MPI. All the results are compared with predictions from QCD-inspired Monte Carlo event generators.

Alternate track

I read the instructions above

Yes

Authors: ALICE, Collaboration; BENCEDI, Gyula (HUN-REN Wigner Research Centre for Physics (HU))

Presenter: BENCEDI, Gyula (HUN-REN Wigner Research Centre for Physics (HU))

Session Classification: Strong interactions and Hadron Physics

Track Classification: 06. Strong Interactions and Hadron Physics