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Charged-particle production as function of event multiplicity in ALICE

Tuesday 2 June 2020 07:30 (1h 20m)

The ALICE experiment at the LHC is designed to investigate the properties of the Quark-Gluon Plasma by studying high-energy A–A collisions. Medium effects like parton energy loss can be examined by measuring the production of charged particles at high transverse momentum (p_{T}). In particular, the correlation between p_{T} spectra and event multiplicity of charged particles can give a handle on the different production mechanisms of charged particles.
In this poster, we report on charged-particle p_{T} spectra as a function of the event multiplicity in pp collisions at $\sqrt{s}$ = 2.76, 5.02, 7 and 13 TeV as well as in p-Pb and Pb–Pb collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.02 TeV to study the energy and system size dependence. By comparing to QCD-inspired models, this measurement can help in understanding the event multiplicity dependence of charged-particle production mechanism.

Collaboration (if applicable)

ALICE

Track

Jets and High Momentum Hadrons

Contribution type

Poster

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