

Overview of charged-particle multiplicities with ALICE

Tuesday, 24 May 2016 18:00 (20 minutes)

An overview of the measured pseudorapidity densities and multiplicity distributions at the LHC's Run 1 and 2 energies will be presented for pp, p-Pb and Pb-Pb systems. The ALICE results are shown for central pseudorapidities and, if available, over a wider pseudorapidity range ($-3.4 < \eta < 5.0$).

The measurement of the inclusive charged-particle production in high-energy interactions is a fundamental observable to describe the global characteristics of the collision. Particle production at LHC energies is dominated by soft processes, but with increasing collision energy the role of perturbative hard processes, like parton scatterings, grows.

The ALICE measurements are compared with results of the different LHC and RHIC experiments. The evolution of the multiplicity with energy is studied, utilizing different parameters depending on the colliding system considered. In addition, the results are compared to models based on various mechanisms of particle production and different initial conditions.

Collaboration

ALICE

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Session Classification: Parallel