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Type: **Parallel Talk**

# ALICE results on system-size dependence of the charged-particle multiplicity density in p-Pb, Pb-Pb and Xe-Xe collisions

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Particle production at LHC energies involves the interplay of perturbative (hard) and non-perturbative (soft) QCD processes. Global variables, such as the charged particle multiplicity, related to the initial geometry and the energy density produced in the collision, are important observables to characterize relativistic heavy-ion collisions and to constrain model calculations.

The LHC has produced Xenon-Xenon collisions for the first time in October 2017. New results on the primary charged particle pseudorapidity density, and its pseudorapidity and centrality dependence are presented for this lighter and deformed nuclei, and compared to measurements obtained for lead ions. Novel results will also be presented for p-Pb collisions at the highest energy of 8.16 TeV, as part of an overview of all the measurements at LHC Run 1 and 2 energies. These studies allow us to investigate the evolution of particle production with energy and system size and to compare models based on various particle production mechanisms and different initial conditions.

## Content type

Experiment

## Collaboration

ALICE

## Centralised submission by Collaboration

Presenter name already specified

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