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Type: **Parallel Talk**

Multiplicity dependence of strangeness and hadronic resonance production in pp and p-Pb collisions with ALICE at the LHC

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One of the key results of the LHC Run 1 was the observation of an enhanced production of strange particles in high multiplicity pp and p-Pb collisions at 7 and 5.02 TeV, respectively. A smooth increase of strange particles relative to the non-strange ones with event multiplicity has been observed in such systems. Results from Run 2 at the top LHC energy are extended exploiting a dedicated high multiplicity trigger. This offers the unique opportunity to study, in elementary collisions, the multiplicity range covered by semi-peripheral Pb-Pb collisions.

We present the latest results on multiplicity-dependent strangeness production at LHC energies with ALICE. The strangeness enhancement is investigated by measuring the evolution with multiplicity of single-strange and multi-strange baryon production relative to non-strange particles. We also present recent measurements of mesonic and baryonic resonances in small collision systems. We investigate the system size dependence in pp and p-Pb collisions to study how hadronic scattering processes affect measured resonance yields, as well as the interplay between canonical suppression and strangeness enhancement. The measurement of the $\phi(1020)$ meson as a function of multiplicity provides crucial constraints in this context. Energy and system-type invariance are discussed and an extensive comparison with statistical hadronization and QCD-inspired models is presented.

Content type

Experiment

Collaboration

ALICE

Centralised submission by Collaboration

Presenter name already specified

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