Contribution ID: **248** Type: **Oral Presentation**

Latest results on the production of hadronic resonances in ALICE at the LHC

Tuesday, 5 November 2019 16:40 (20 minutes)

Short-lived hadronic resonances are used to study different aspects of particle production and collision dynamics in pp, p—A and relativistic heavy-ion collisions. The yields of resonances are sensitive to the competing processes of hadron rescattering and regeneration, thus making these particles unique probes of the properties of the late hadronic phase. Measurements of resonances with different masses and quantum numbers also provide insight into strangeness production and processes that determine the shapes of particle momentum spectra at intermediate transverse momenta, as well as the species dependence of hadron suppression at high momentum.

Thanks to a campaign of precise measurements, the ALICE experiment now has a comprehensive set of results with unprecedented precision for $\rho(770)^0$, $\mathrm{K}^*(892)$, $f_0(980)$, $\phi(1020)$, $\Sigma(1385)^{\pm}$, $\Lambda(1520)$, and $\Xi(1530)^0$ production in pp, p—Pb, Xe-Xe and Pb-Pb collisions in the energy range $\sqrt{s_{\mathrm{NN}}}$ = 2.76-13 TeV, including the latest measurements from LHC Run 2. The obtained results are used to study the system-size and collision-energy evolution of transverse momentum spectra, particle ratios and nuclear modification factors and to search for the onset of collectivity in small collision systems. These results are compared to lower energy measurements and model calculations where available.

Primary author: KHUNTIA FOR THE ALICE COLLABORATION, Arvind (Indian Institute of Technology Indore (IN))

Presenter: KHUNTIA FOR THE ALICE COLLABORATION, Arvind (Indian Institute of Technology Indore (IN))

Session Classification: Parallel Session - Collective dynamics III

Track Classification: Collective dynamics and final state interaction