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## Light-Flavor Hadron Production from Small to Large Collision Systems at ALICE

*Tuesday, 4 September 2018 17:43 (18 minutes)*

Light-flavor hadrons, which consist of up, down, and strange valence quarks, can be used to study many different properties of ion-ion collisions. An overview of light-flavor hadron measurements performed with the ALICE detector will be presented, including measurements in pp collisions from 0.9 to 13 TeV, p-Pb collisions at 5.02 and 8.16 TeV, Pb-Pb collisions at 2.76 and 5.02 TeV, and new results from Xe-Xe collisions at 5.44 TeV. The production of strange particles is enhanced from small to large collision systems, with the strength of the enhancement depending on the strangeness content. The production of some short-lived resonances, such as  $\rho(770)0$ ,  $K^*(892)0$ , and  $\Lambda(1520)$ , is suppressed in larger collision systems, which may be attributable to scattering effects in the late hadronic phase. Hadron transverse-momentum spectra evolve with system multiplicity or centrality, becoming harder for larger collision systems. In nucleus-nucleus collisions, this is likely the result of radial flow; qualitatively similar behavior has also been observed in p-Pb and pp collisions. The ALICE collaboration's large set of light-flavor hadron measurements, including transverse momentum spectra, yields, and nuclear modification factors, will be presented for different collision systems. These will be compared to results from lower energy experiments and to theoretical models, including EPOS, DIPSY, PYTHIA, and statistical thermal models.

### Selected session

Heavy Ion Collisions and QCD Phases

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**Session Classification:** Heavy Ion collisions and QCD phases