

Identified particle production in p-Pb collisions at 8.16 TeV with ALICE at the LHC

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Measurement of identified charged particle production as a function of multiplicity in pp and p-Pb collisions are important tools for understanding the similarities and differences between small and large interacting systems. Due to their short lifetime, resonances are useful tools to understand the mechanism of particle production and properties of the hadronic phase. The yield of resonances might be modified due to in-medium effects such as re-scattering and regeneration. In particular, studying the resonance production in p-Pb collisions along with pp provides a baseline measurement for comparison with Pb-Pb results and helps in understanding the cold nuclear matter contributions such as shadowing and Cronin effects.

The excellent tracking and particle identification capabilities of the ALICE detector allow us to study identified particle production from very low to high transverse momentum. We will present the measurement of $K^*(892)^0$ and $\phi(1020)$ resonances as well as pions, kaons and protons performed in p-Pb collisions at $\sqrt{s_{NN}} = 8.16$ TeV in the rapidity range $-0.5 < y < 0$. The results include the transverse momentum spectra (p_T), integrated yields, mean transverse momenta and p_T integrated yields ratio for various centrality classes. The results will be compared with p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV.

Summary

Authors: ALICE COLLABORATION; DUDI, Sandeep (Panjab University (IN))

Presenter: DUDI, Sandeep (Panjab University (IN))

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