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Measurement of neutral $K^*(892)$ and $\phi(1020)$ production in p-Pb collisions at c.m energy 8.16 TeV with ALICE at the LHC

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Hadronic resonances are interesting probes of the hot and dense matter created in heavy-ion collisions. Due to their short lifetime, resonances are useful tools to understand the mechanism of particle production and properties of the hadronic phase. If the time interval between the chemical and kinetic freeze-out (hadronic phase) is comparable with the lifetime of the resonance, the yield of resonances might be modified due to in-medium effects such as re-scattering and regeneration. In particular, studying resonance production in p-Pb collisions along with pp provides a baseline for measurements in Pb-Pb collisions and helps in understanding cold nuclear matter effects such as the Cronin enhancement at intermediate p_T and shadowing effects.

We report on the measurement of $K^*(892)^0$ and $\phi(1020)$ resonances, 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 (p_T) spectra, integrated yields and mean transverse momentum. The p_T spectra of K^{*0} and ϕ have also been measured as a function of multiplicity up to $p_T = 20$ GeV/c and 16 GeV/c, respectively. The results will be compared with p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV.

Content type

Experiment

Collaboration

ALICE

Centralised submission by Collaboration

Presenter name already specified

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