XXV DAE-BRNS High Energy Physics Symposium 2022



Contribution ID: 362 Type: Talk

Resonance production and hadronic phase in heavy-ion collisions with ALICE at the LHC

Tuesday 13 December 2022 15:00 (15 minutes)

The ALICE experiment at the LHC is designed to study the hot and dense medium produced in ultrarelativistic heavy-ion collisions. Due to their short lifetimes, resonances are useful tools to understand the mechanism of particle production and properties of the hadronic phase created after these collisions. The yield of resonances might be modified with respect to expectations due to in-medium effects such as re-scattering and regeneration. Resonance production is also important to understand the in-medium effects observed through the nuclear modification factor $(R_{\rm AA})$ at high $p_{\rm T}$. Rapidity asymmetry $(y_{\rm asym})$ is important to study the particle production mechanism in p-Pb collisions, where nuclear effects will be different in the p-going and Pb-going directions. \backslash

In this talk, recent results on resonance production in p-Pb collisions at $\sqrt{s_{NN}}$ = 5.02 TeV, Xe-Xe collisions at $\sqrt{s_{NN}}$ = 5.44 TeV and Pb-Pb collisions at $\sqrt{s_{NN}}$ = 5.02 TeV are presented. The results include transverse momentum spectra ($p_{\rm T}$), rapidity asymmetry ($y_{\rm asym}$), integrated yields and mean transverse momenta for various centrality classes. The results will be compared with model predictions.

Session

Heavy Ions and QCD

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Session Classification: WG5-Heavy Ions and QCD