Contribution ID : **47** Type : **Plenary talk**

Study of the Bi+Bi & p+p collisions for the MPD/NICA

Wednesday, 16 December 2020 16:30 (0:30)

Content

We present the analysis of identified charged particles ($\pi\pm$, K$\pm$, p, p$-$) formation at a region of $|\eta|<0.5$ in Bi-Bi ion collisions at energies $\sqrt{s}$ = 7.7, 9, 9.46 GeV. The particle momentum spectra for charged hadrons are measured using data from statistical Monte-Carlo generator: Ultrarelativistic Quantum Molecular Dynamics (UrQMD) for the Multi-PurposeDetector (MPD) of the NICA project. We measure the particle identification efficiency and validate various track level cuts for lowering the uncertainties. The analysis of particle multiplicity dependence on the collision energy and centrality dependence of the spectra was performed for investigated particle species. Also, an analysis over p+p collisions is presented for the number of particles generated vs the number of reconstructed particles, and average transverse momentum for charged multiplicity.

Area of contribution

Experiment: data analysis

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Session Classification : Simulations