Contribution ID: **259** Type: **Oral talk (15 min + 5 min questions)**

Application of the MC-Glauber approach for centrality determination in heavy-ion collisions with the BM@N experiment

Thursday, 14 July 2022 17:29 (20 minutes)

Centrality is an important concept in the study of strongly interacting matter created in a heavy-ion collision whose evolution depends on its initial geometry. In the case of Baryonic Matter at Nuclotron (BM@N), which is a fixed-target experiment, collision can be characterized by the measured multiplicity or energy of produced particles at midrapidity or spectator fragments in the forward rapidity region.
We will present the application of the MC-Glauber approach for centrality determination in heavy-ion collisions with the BM@N experiment. The multiplicity of charged hadrons is measured in BM@N using a combination of Silicon Tracking System (STS) and Gaseous Electron Multiplier (GEM) detectors and connected to collision geometry parameters using the Monte-Carlo Glauber model. We will discuss the applicability of the standard Monte-Carlo Glauber approach for medium-sized nuclei collisions with low multiplicity, which is typical for the BM@N.

The speaker is a student or young scientist

Yes

Section

1. Intermediate and high energies, heavy ion collisions

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