

Reconstruction of impact parameter distribution using hadron calorimeter

Centrality determination is an important task because it allows one to estimate the collision system size in relativistic heavy-ion collisions.

With the help of centrality, it is also possible to compare the results of BM@N at NICA with data from other experiments and calculations of the theoretical models. In this work is proposed a new approach for centrality determination with the two-dimensional distribution the energy of spectator fragments and the multiplicity of charged particles and based on the inverse Bayes theorem. Centrality determination procedure was tested on NA61/SHINE data for Pb+Pb collisions at $p_{lab} = 13A$ GeV/c.

Section

Heavy ion collisions at Intermediate and high energies

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