

Centrality assessment of Xe+Csl@3.8AGeV collisions using forward detectors at BM@N experiment

An experimental study on the interaction of xenon nuclei with a cesium iodide target was conducted at the BM@N facility, employing incident beam kinetic energies of 3.8 GeV and 3.0 GeV per nucleon. The BM@N setup is equipped with forward detectors, namely the Forward Hadronic Calorimeter (FHCAL) and the Forward Quartz Hodoscope (FQH), designed to determine the geometry of nuclear collisions. This report explores the feasibility of utilizing correlations between the responses of the forward detectors to determine the centrality of nucleus-nucleus collisions, as well as their application in pileup analysis.

Section

Heavy ion collisions at Intermediate and high energies

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