

Study of the interaction trigger and beam ion fragmentation for Au + Au collisions in BM@N experiment

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The Monte-Carlo simulation of the trigger detector performance and interaction trigger efficiency for Au + Au collisions in BM@N[1-2] experiment at energy of 4 A GeV was performed with a code DCM-QGSM[3] + GEANT4[4]. The Au ion fragmentation and detection of spectator neutrons by a neutron zero-degree calorimeter and charged nuclear fragments by a forward Cherenkov counter were studied with the aim to include this information to the fast interaction trigger providing more reliable selection of events by centrality.

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Primary authors: Mr LASHMANOV, Nikita (Joint Institute for Nuclear Research); Dr SEDYKH, Sergey (Joint Institute for Nuclear Research); Prof. YUREVICH, Vladimir (Joint Institute for Nuclear Research (RU))

Presenter: Mr LASHMANOV, Nikita (Joint Institute for Nuclear Research)

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