

On the azimuthal flow of protons in the heavy ion collisions at 2-4 GeV

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In the relativistic heavy ion collisions at the beam energy of a few GeV the strongly interacting matter is created at high baryon densities and relatively low temperatures. Azimuthal anisotropy of the produced particles provides a valuable insight into the properties of this form of matter. In this work we discuss the layout of the upgraded Baryonic Matter at Nuclotron (BM@N) experiment and the anticipated performance for measuring the directed and elliptic flow of protons relative to spectator symmetry plane. We present the results of the study on the scaling properties of anisotropic flow of protons at the beam energies of several GeV.

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