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Anisotropic flow studies in heavy ion collisions at relativistic energies

Anisotropic flow in heavy ion collisions is sensitive to the properties of produced hot and dense nuclear matter. In the present work, we will use a multi-phase transport (AMPT) model, with the default version and the version with string melting, to study the (pseudo)rapidity and p_T dependence of anisotropic flow coefficients of charged hadrons and identified particles produced in heavy-ion collisions at future CBM-FAIR energies. These results could indicate if a partonic matter is formed during early stage of relativistic heavy ion collisions and only around midrapidity. The simulated results will be compared with existent experimental data.

Experimental Collaboration

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