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Anisotropic collective flows and development of a technique for their measurement at the MPD facility of the NICA collider

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The goal of this project is to develop and deploy experimental measurement techniques for the azimuthal collective flow measurement with the MPD experiment at the NICA collider for different types of hadrons produced in nucleus-nucleus collisions. As a result of the project implementation a numerical modelling of the anisotropic collective flow based on the modern Monte-Carlo event generators of heavy-ion collisions with subsequent simulation of the realistic response of the MPD detector subsystems based on the GEANT platform and reconstruction algorithms build in the MPDROOT will be performed. A set of simulated heavy-ions collisions will be used for deploying of the existing and development of new algorithms for the measurement of the anisotropic collective flow which will utilize different combinations of the MPD detector subsystems.

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