

Relative elliptic flow fluctuations at NICA energy regime

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The main aim of the MPD experiment at the future collider NICA is to study the strongly interacting matter created in the heavy-ion collisions at center-of-mass energies $\sqrt{s_{NN}} = 4-11$ GeV. The azimuthal anisotropy is a key observable in such collisions as its sensitivity to the transport properties and equation of state of the created matter. The relative elliptic flow fluctuations are of intense interest since they can be used as a probe for the initial conditions using the ratio of cumulants $v_2\{4\}/v_2\{2\}$. State-of-the-art models of heavy-ion collisions: UrQMD, AMPT, and vHLL+UrQMD are employed for the study of relative elliptic flow fluctuations at the NICA energy regime.

Primary authors: LUONG, Vinh (National Research Nuclear University MEPhI (RU)); IDRISOV, Dim (National Research Nuclear University MEPhI); PARFENOV, Petr (NRNU MEPhI (RU)); TARANENKO, Arkadiy (National Research Nuclear University MEPhI (RU))

Presenter: LUONG, Vinh (National Research Nuclear University MEPhI (RU))

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