

Probing properties of pion- and kaon-emitting sources at NICA energies

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Relativistic heavy-ion collision experiments are aimed to study the properties of nuclear matter under extreme conditions, i.e. high baryon density and/or temperature, and to understand the underline mechanism of transition from quark-gluon to hadron matter. The phase transition may leave imprints on space and time characteristics of particle-emitting source that can be measured using femtoscopy technique.

In this talk, we will report the results of two-pion and two-kaon femtoscopic expectations for NICA energies. We explore the possible effects on the femtoscopic radii for different description of collision evolution scenarios from the UrQMD (microscopic transport theory based on h-h collisions) and vHLLE+UrQMD (relativistic hydrodynamics + cascade) models. The physics implications will be discussed.

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