

Femtoscopic scales of particle-emitting source in small and large systems

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The femtoscopy technique allows one to measure the spatial and temporal scales of the particle-emitting source produced at high energy collisions. In non-central ultra-relativistic heavy-ion collisions, emitting source may be tilted in the reaction plane. The orientation of freeze-out distributions is interesting because it provides complementary information about quark-gluon matter properties. In the experiment, the tilt can be extracted by measuring femtoscopic radii as a function of the pair angle with respect to the first-order event plane.

In this talk, we will present results of azimuthally sensitive femtoscopic analysis of Au+Au collisions at 200 GeV using UrQMD and vHLLC models. We will also present the transverse momentum and multiplicity dependence of identical pion and kaon femtoscopic radii from d+Au, $^3\text{He}+\text{Au}$ collisions at 200 GeV obtained from the UrQMD model.

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