

XXV International Baldin Seminar on High Energy Physics Problems
"Relativistic Nuclear Physics and Quantum Chromodynamics"



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Femtoscopic correlations of charged kaons in Au-Au collisions at BES-I STAR energy region with the UrQMD model

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Femtoscopia is a primary tool for measuring the spatiotemporal characteristics of small and short-lived systems created in particle or nuclear collisions with an accuracy of 1 fm. The possibility of such measurements is due to the effects of quantum statistics and final state interactions which create the momentum correlations of two or more particles at small relative momenta in their center-of-mass system. We report on the calculations of like-sign kaon femtoscopic correlations produced in Au+Au at the BES-I region from RHIC using the Ultrarelativistic Quantum Molecular Dynamics Model (UrQMD). We discuss the 3D kaon radii as a function of the transverse momentum of the particles and the centrality of the collision.

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