

Femtoscopic correlations of pions and kaons measured in the BES program at STAR

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In high-energy heavy-ion collisions, a hot and dense strongly interacting system of deconfined quarks and gluons (sQGP) is created. The Beam Energy Scan program at RHIC was performed to map the QCD phase diagram. Femtoscopy allows one to measure the space-time extent of the particle emitting source created in heavy-ion collisions. In this talk, we present preliminary results of the measurement of like-sign two-pion and two-kaon correlations from the BES program at STAR. Since kaons contain strange quark and have smaller cross-sections, compared to that of pions, with hadronic matter, they may provide additional information about the system evolution. The extracted Bertsch-Pratt radius parameters of kaons are studied as a function of collision centrality and transverse mass (m_T) of the particles and compared to those of pions.

List of tracks

Femtoscopic at RHIC and LHC: links to QGP physics

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