

Contribution ID: 232 Type: Poster

Bose-Einstein correlations of charged kaons produced by $\sqrt{s_{\scriptscriptstyle NN}}=200$ GeV Au+Au collisions in STAR at RHIC

Wednesday 6 April 2022 17:42 (4 minutes)

Bulk properties of nuclear matter can be extracted by employing femtoscopic methods to study the high-energy systems emerging from relativistic heavy-ion collisions. The space-time structure of the particle-emitting source can be examined by observing the effects of quantum-statistics and final-state-interactions on the pair correlations of particles, with data collected by the STAR experiment from $\sqrt{s_{NN}}=200~{\rm GeV}$ Au+Au collisions created at RHIC. On account of being less susceptible to resonance decays and having a smaller reaction-cross-section while interacting with hadrons, kaons provide a complementary probe of the particle-emitter as compared to pion analyses. Results from Bose-Einstein correlations between pairs of charged kaons will be presented in this study and compared to descriptions based on a Levy-shaped source distribution.

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Session Classification: Poster Session 1 T06 / T07

Track Classification: Hadron production and collective dynamics