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Measurement of two-particle femtoscopic correlations in p+p and Au+Au collisions in STAR

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We report on the measurement of like-sign kaon femtoscopic correlations in p+p collisions at $\sqrt{s}$=200 and 510 GeV and in Au+Au collisions at $\sqrt{s_{NN}}$ recorded by STAR at the Relativistic Heavy Ion Collider. These type of correlations allow to extract statial and temporal characteristics of the particle emitting source. The femtoscopic analysis was performed using one- and three-dimensional correlation functions for several multiplicity (centrality) and pair transverse momentum ranges. The source sizes were extracted by fitting the experimental correlation functions. The measured multiplicity and transverse pair momentum dependencies of the kaon emitting source radii were compared to those obtained for pions.

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