Contribution ID: **458** Type: **Poster Presentation**

Neutral kaon femtoscopy in Au+Au collisions measured at the STAR experiment

Monday 4 November 2019 17:40 (20 minutes)

The Solenoidal Tracker at RHIC (STAR) enables the possibility of exploring the properties of strongly interacting nuclear matter using the method of femtoscopy. By studying the quantum statistical effects and final state interactions between two particles, one can extract emission source parameters, which is used to describe geometrical and dynamical properties of the homogeneity region. We use the high statistics data of Au+Au collisions recorded by the STAR experiment to study the correlations between strange particles. The lightest strange particles are kaons. Kaons are less affected by resonances decays and provide a cleaner signal of two-particle correlations. Neutral kaons, K^0_S, can be measured through their decay products to the pair of charged pions.

In this poster, femtoscopic results of system of two neutral kaons produced in Au+Au collisions at the STAR experiment will be presented.

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Session Classification: Poster Session

Track Classification: Collective dynamics and final state interaction