

**K^+K^+ correlation functions in Au+Au collisions at
 $\sqrt{s_{NN}} = 3.0 - 3.9$ GeV**

**Bijun Fan
(for the STAR Collaboration)**

1 Two-particle correlations are used to extract the space-time and dynamical infor-
2 mation of the particle-emitting source created in heavy-ion collisions. The source radii
3 extracted from these correlations characterize the system at the kinetic freeze-out, i.e.,
4 the last stage of particle interactions. Kaons can provide a more direct view of the
5 particle-emitting source than pions as they have smaller hadronic cross section and less
6 contribution from long lifetime resonances.

7 In this talk, the measurements of K^+K^+ correlation functions in Au+Au collisions at
8 $\sqrt{s_{NN}} = 3.0, 3.2, 3.5,$ and 3.9 GeV recorded by the STAR experiment will be presented.
9 One-dimensional source size (R_{inv}) and correlation strength parameter (λ) of the system
10 are extracted from the correlation functions using the Bowler-Sinyukov formula. The
11 comparison of the measured radii with the predictions from UrQMD+CRAB will be
12 discussed.