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Proton-Proton, Proton-Antiproton and Antiproton-Antiproton Correlations

Wednesday, 14 June 2017 17:00 (20 minutes)

Through experiments with heavy-ion collisions at high energies we can study the properties of nuclear matter under extreme conditions. The information on the sizes of the particle-emitting sources can be inferred via the method of femtoscopy.

The femtoscopy method uses Quantum Statistics effects and the Final State Interactions to determine the space-time properties of the source. The radii of the sources extracted from two-baryon femtoscopy along with those obtained from two-meson and meson-baryon correlations provide complementary information about the source characteristics.

In this talk, a status report of a STAR analysis of proton and antiproton femtoscopic correlations in Au+Au collisions at $\sqrt{s_{NN}}$ of 39 GeV, 11.5 GeV and 7.7 GeV will be presented.

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Femtoscopy at RHIC and LHC: links to QGP physics

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Session Classification: Femtoscopy at RHIC and LHC: links to QGP physics