

XXV International Baldin Seminar on High Energy Physics Problems
"Relativistic Nuclear Physics and Quantum Chromodynamics"



XXV International Baldin Seminar
on High Energy Physics Problems
Relativistic Nuclear Physics & Quantum Chromodynamics
September 18 - 23, 2023, Dubna, Russia

Contribution ID: 61

Type: **not specified**

Two-Pion Femtoscopic Correlations in Au+Au Collisions at $\sqrt{s_{NN}} = 3$ GeV from STAR

Friday, 22 September 2023 09:20 (20 minutes)

The technique of correlation femtoscopy helps one not only to estimate the geometric dimensions and lifetime of the particle emission region in nucleus-nucleus collisions, but also help to answer the question of whether the source has a boost-invariant spatiotemporal structure. This work is aimed to studying the femtoscopic parameters of identical-pion emission region in Au+Au collisions at $\sqrt{s_{NN}} = 3$ GeV in the STAR experiment. The extracted radii (R_{out} , R_{side} , R_{long} , $R_{out-long}^2$) and correlation strength (λ) are presented as a function of collision centrality, pair rapidity and transverse momentum. The obtained femtoscopic parameters are compared with the model predictions.

Primary author: KRAEVA, Anna (National Research Nuclear University MEPhI)

Presenter: KRAEVA, Anna (National Research Nuclear University MEPhI)

Session Classification: Parallel: Relativistic heavy ion collisions