

Femtoscopy Results in Au+Au Collisions at $\sqrt{s_{NN}} = 3$ GeV from STAR

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1 One of the main tasks of relativistic nuclear physics is the search for signs of
2 formation, quantitative evaluation and description of nuclear matter properties
3 under extreme conditions. Heavy-ion collision experiments provide a unique
4 opportunity to investigate it in the laboratory. The characteristic of the sys-
5 tem created as a result of heavy-ion collisions can be explored via spatial and
6 temporal parameters obtained using the method of correlation femtoscopy.

7 In this report, the results on the measurements of femtosopic correlations
8 will be presented for proton-proton, proton-deuteron, deuteron-deuteron and
9 identical pions pairs produced in Au+Au collisions at $\sqrt{s_{NN}} = 3$ GeV recorded
10 by the STAR experiment at RHIC.
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