

Two-particle correlations using THERMINATOR model for BES program.

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THERMINATOR model is dedicated to heavy-ion collisions. Its current description allows one to work with data for the highest collision energies achieved by LHC and RHIC colliders. However it is possible to adapt THERMINATOR model to the lower energy spectrum as is used in Beam Energy Scan (BES) program at RHIC.

Femtoscopy of two particles investigates the properties of matter produced in heavy-ion collisions. It allows one to study the space-time characteristics of the medium.

We present single- and two-particle momentum distributions of particles generated for the energy spectrum for BES program. To verify how model predictions agree with experimental results, we present the correlation functions obtained for identical pions in Au+Au collisions at $\sqrt{s_{NN}} = 7.7 - 39$ GeV.

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Femtoscopy at RHIC and LHC: links to QGP physics

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