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Calculation of shear viscosity in Au+Au collisions at NICA energies

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Shear viscosity of hot and dense nuclear matter, produced in the central zone of central gold-gold collisions at energies of NICA, is calculated within the UrQMD model. Besides the microscopic simulations of heavy ion collisions, the procedure assumes the application of statistical model to determine the temperature and chemical potentials in the system, and study of the relaxation process within the UrQMD box with periodic boundary conditions. The latter is used for calculation of the correlator which enters the Green-Kubo formula for shear viscosity. The fluctuations at early and late stages of the system evolution are studied. Results are compared to predictions of other models.

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