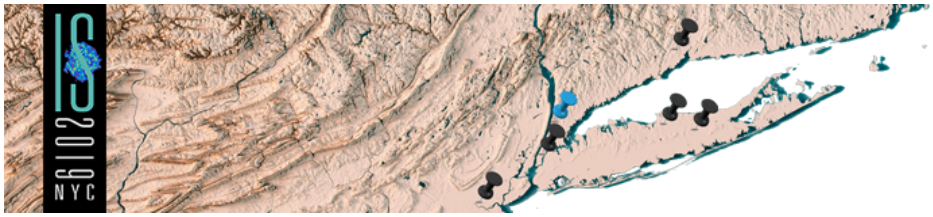

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Non-equilibrium Green's functions for energy-momentum perturbations around Bjorken flow from the Boltzmann equation in relaxation time approximation

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Non-equilibrium Green's functions provide an efficient tool to describe the evolution of the energy-momentum tensor during the early time pre-equilibrium stage, and provide a meaningful to address the question when and to what extent a hydrodynamic description of the system becomes applicable. We present a calculation of the Green's functions describing the evolution of energy density perturbations in the transverse plane, based on the Boltzmann equation in relaxation time approximation. We discuss the approach towards viscous hydrodynamics along with the emergence of various scaling phenomena for conformal systems. By comparing our results obtained in the relaxation time approximation to previous calculations in QCD kinetic theory, we further address the question which macroscopic features of the energy momentum tensor are sensitive to the underlying microscopic dynamics.

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