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Hydrodynamic fluctuations in expanding medium

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We describe intrinsic hydrodynamic fluctuations of the expanding boost-invariant (Bjorken) solution. We find that these fluctuations are correlated over a wide rapidity range due to the propagation of the sound modes, whose dispersion is nontrivial because of the expansion. Since the magnitudes of these correlations are proportional to viscosities, their measurement can, in principle, be used to obtain information about the transport coefficients as well as thermodynamic properties of the medium.

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