Evolution of temperature fluctuation in a thermal bath and, its implications in hadronic and heavy-ion collisions

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The evolution of temperature fluctuations inside an in-homogeneous and an-isotropic medium is derived within the ambit of Boltzmann Transport Equation. Also, taking some existing realistic inputs we have analyzed the Fourier space variation of temperature fluctuation for the medium created after heavy-ion collisions. The effect of viscosity on the variation of fluctuations is investigated. Further, possible implications in hadronic and heavy-ion collisions are explored.

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