Séminaire commun

Thermoelectric transport and the spectra of conserved operators in RTA kinetic theory

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Résumé

The relaxation time approximation (RTA) of the kinetic Boltzmann equation is one of the simplest windows into the microscopic properties of collective real-time transport. In the context of the RTA with classical massless particles, I will discuss the analytically computed retarded two-point Green's functions of the energy-momentum tensor and a conserved current in thermal states at non-zero density, and in the absence/presence of broken translational symmetry. Furthermore, I will provide an overview of the analytic structure of the different correlators and the transport properties that they imply, such as the thermoelectric conductivities and the quasihydrodynamic dispersion relations.