**Abstract**

Electric and thermal transport in electronic systems has long been described in terms of a single-particle picture, which emphasizes the role of collisions between electrons and impurities or phonons, while electron-electron collisions play a secondary role. It is only in the past two decades that advances in the fabrication of ultra clean samples have refocused the interest on collective hydrodynamic transport - a transport regime which is controlled by the nearly conserved quantities: number, momentum, and energy, and by electron-electron interactions. In this talk I review some of the recent theoretical and experimental progress in our understanding of electronic hydrodynamics in graphene-based materials. I would focus on thermal transport and its relation to electric transport, characterized by the Wiedemann-Franz law which, in its conventional form, predicts a universal ratio between electric and thermal resistivities. Significant deviations from this prediction are found in single layer and double layer graphene, both in the doped case, where the Wiedemann-Franz ratio is reduced, and in the undoped case, where it is greatly enhanced. In the latter case an interesting scenario emerges, in which a small amount of disorder helps to expose an underlying singularity of the transport coefficients: vanishing thermal resistivity, finite electric resistivity, and diverging Wiedemann-Franz ratio and Seebeck coefficient.