Chez Pierre

Presents ...

Monday, September 17, 2018

12:00pm Noon

MIT Room 4-331

Chez Pierre Seminar

Assa Auerbach, Technion-Israel Institute of Technology

"The Hall number of Strongly Correlated metals"

An exact formula for the temperature dependent Hall number of metals is derived. It is valid for non-relativistic fermions or bosons, with arbitrary potential and interaction. This DC transport coefficient is proven to (remarkably) depend solely on equilibrium susceptibilities, which are more amenable to numerical algorithms than the conductivity. An application to strongly correlated phases is demonstrated by calculating the Hall sign in the vicinity of Mott phases of lattice bosons.

Ref: arXiv:1802.04810