

Abstract

Plenary

Sven Bachmann (University of British Columbia)

Quantized quantum transport in interacting systems

Joint with Alex Bols, Wojciech De Roeck and Martin Fraas

For non-interacting fermions at zero temperature, it is well established that charge transport is quantized whenever the chemical potential lies in a gap of the single-body Hamiltonian. In the last decade, new tools originally developed in the context of the classification of exotic phases of matter have been successfully applied to understand this quantization even in the presence of interactions. As I shall explain, transport is in general fractional.