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Horia Cornean

Wednesday, November 13, 2024 10:45 AM (45 minutes)

Title: A mathematical approach to N(on)E(quilibrium)G(reen)F(unctions)

Abstract: Quantities like local particle densities and charge currents in mesoscopic systems are computed by a large community of solid-state physicists via the so-called NEGF formalism. We will rigorously define these Green functions and focus on the Dyson equation for the advanced/retarded interacting Green's function, by constructing its (irreducible) self-energy using the theory of Volterra operators. This is joint work with C.-A. Pillet and V. Moldoveanu.