Quantum 2021 : Dynamics and local control of impurities in complex quantum environments



ID de Contribution: 10

Type: Non spécifié

Electric and heat transport in a charge two-channel Kondo device (ONLINE presentation)

vendredi 3 septembre 2021 14:00 (1 heure)

Motivated by the experimental realization of a multi-channel charge Kondo device [Iftikhar et al., Nature 526, 233 (2015)], we study generic charge and heat transport properties of the charge two-channel Kondo model. We present a comprehensive discussion of the out-of-equilibrium and time-dependent charge transport, as well as thermal transport within linear response theory. The transport properties are calculated at, and also in the vicinity of, the exactly solvable Emery-Kivelson point, which has the form of a Majorana fermion resonant level model. We focus on regimes where our solution gives exact results for the physical quantum dot device, and highlight new predictions relevant to future experiments.

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