PHYSIKALISCHES KOLLOQUIUM

Sommersemester 2023

Das Kolloquium findet (soweit nicht anders angegeben) **jeweils montags um 17:15 Uhr in Präsenz im Röntgen-Hörsaal des Physikalischen Instituts, Hubland Campus Süd, Universität Würzburg und online via Zoom statt.**

Link zum Zoom-Raum:
https://go.uniwue.de/physkolloqzoom

19.06.2023

Prof. Dr. Erwann Bocquillon
Universität zu Köln, Physikalisches Institut

Topological one-dimensional conductors

Abstract

In solid-state matter, topological properties of the band structure can enforce the appearance of conducting one-dimensional edge states at the boundaries of the material, while the bulk remains insulating. These states are a fascinating playground to study the physics of one-dimensional quantum-coherent conductors. They could also provide a support system for 'topological quantum bits', robust against local perturbations and decoherence.

Here, I will present the interest of dynamic transport in the GHz range as well as current correlations to study several topological one-dimensional conductors. I will introduce exemples revealing the dynamics, quantum indistinguishability, or quantum statistics of the excitations.

Für die Dozentinnen bzw. Dozenten der Fakultät

PD. Dr. Meyer, Prof. Dr. Klembt, Dr. Fromm, Dr. Feichtner und Hr. Kögel