

Physikalisches Kolloquium

Donnerstag, 12.01.2023, 16:30 Uhr – Hörsaal 5J

Transport in Topological materials

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The notion of topology applied to the band theory of crystalline solids has become a paradigm to complement our understanding of phases of matter and opens the possibility of important technological advances in the fields of quantum computation and electronic control. In this talk, I will introduce two paradigmatic models, a quasi-one-dimensional superconductor and a three-dimensional semimetal, and review some of their recent experimental realization. I will characterize the associated topologically non-trivial states and their robustness against electron-phonon interaction, a key step toward their detection. I will also investigate the signatures in thermoelectric transport, highlighting the contribution of the edge or surface states.

Ab 16:15 Uhr kollegialer Austausch im Foyer vor dem Dekanat der Math.-Nat.-Fakultät (Gebäude 25.31. Ebene 00)

Für die Dozenten der Physik

Prof. Dr. Reinhold Egger

Dr. Buccheri strebt ein Habilitationsverfahren an der HHU an.