

TRR 352 Junior Coffee Breaks

Severin Schraven

(TUM)

"What is the landscape function?"

Abstract: For many problems in quantum mechanics it is important to have a good grasp of the operators modelling the system. The landscape function was introduced as a tool to compute spectral quantities of such operators. Numerical experiments led to many conjectures on what the landscape function should be able to capture. In this talk I will give an introduction to the topic and provide an overview of the progress made in the last decade.

and

Marius Wesle

(University of Tübingen)

"Algebraic description of infinite-volume lattice fermions"

Abstract: The operator-algebraic description of quantum mechanical systems can be used to mathematically deal with systems, where the usual Hilbert space description becomes inconvenient or breaks down. In this talk I will discuss how, using this formalism, one can describe a system of interacting lattice fermions directly in the infinite-volume limit. This will allow us to formulate and analyse properties of the bulk of the system, such as the bulk Hall conductivity.

Tuesday, July 9, 2024, 2.00 pm

TUM Garching, Boltzmannstr. 3, room 00.10.011

Zoom: https://tum-conf.zoom-x.de/j/5689907529?pwd=ZnBiYTBQalpKY3BIQk05Ui9ER1FzQT09 Meeting ID: 568 990 7529 Passcode: 199936