

Theoriekolloquium

<https://meeting.uol.de/b/and-etc-jmj-1y9>

Am **3. Juni 2021 um 14.15 Uhr** hält

Herr Dr. Jonas Richter (London)

einen Vortrag mit dem Titel

Quantum many-body dynamics: Selected topics, challenges, and opportunities

The dynamics of interacting quantum systems with many degrees of freedom has attracted an increasing amount of interest in recent years. In this talk, I will provide an overview of selected topics in the field, with particular emphasis on thermalization and transport phenomena, as well as mechanisms of ergodicity breaking such as many-body localization and quantum scars. In this context, I will discuss several examples where progress can be achieved thanks to the useful numerical methods of quantum dynamical typicality and numerical linked cluster expansions. Moreover, I will propose a typicality-based algorithm to simulate certain aspects of quantum many-body dynamics on noisy-intermediate scale quantum devices, such as Google's quantum processor Sycamore.

Interessierte sind herzlich eingeladen.

gez. Prof. Dr. Martin Holthaus