



# Einladung zum Vortrag

“Novel platforms for quantum science and technology”

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**Termin:** Freitag, 27.11.2020, 11:00 Uhr

**Zoom Meeting:** <https://us02web.zoom.us/j/86456001690>

### Abstract:

The 'second quantum revolution' aims at exploiting coherence for novel technologies that will likely involve electromagnetic, mechanical, and topological degrees of freedom.

Nonreciprocal devices have recently attracted much attention. Building on our recent work on optomechanical non-reciprocity [Nat Commun 8, 604 (2017)], I will present a unifying topological framework to understand directional amplification in driven-dissipative cavity arrays [Nat Commun 11, 3149 (2020)].

These developments have led to many-body problems interesting in their own right. As an example, I will mention the robustness of Majorana edge modes under disorder and interactions and slow entanglement growth in integrable, disordered systems [PRL 122, 020603 (2019)].

My research aims at a deeper understanding of many-body physics and at proposing novel ideas for near-term quantum technologies.