



# Einladung zum Mathematischen Kolloquium mit Vor-Kolloquium

Vor-Kolloquium moderiert von Herrn Sahand Tokasi

Es spricht am

Montag, den ~~12~~.07.2021, um 17:15 Uhr

***Prof. Dr. Marius Lemm***

*(EPFL Lausanne)*

über das Thema

## **„Spectral Gaps in Quantum Spin Systems“**

Quantum spin systems are useful models of condensed matter physics and quantum information science. They are complex enough to show true many-particle phenomena and simple enough to be amenable to rigorous mathematical analysis. A key role is played by the spectral gap of the Hamiltonian operator. The central question is whether the gap stays open or closes as the system size becomes large. If the gap of a quantum spin system stays open, this has far-reaching consequences for the low-energy physics. We review recent developments showing that the gap of certain model systems stays open.

**online - wenn Sie Zugang haben wollen, schicken Sie bitte eine Nachricht an Angelika Spörer-Schmidle.**

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Zuvor wird zum virtuellen Tee ab 16 Uhr 45 eingeladen.