Speaker: **Eric Brunner**

Title: **Lindbladian engineering for quantum Gibbs state preparation**

Date: **Monday, September 9th, 11:00 am (s.t.).**

Place: **Seminar room 915**

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Abstract:

Building upon recent progress in Lindbladian-based algorithms for quantum Gibbs-state preparation, we propose a simplified protocol assuming that the system dynamics is governed by the eigenstate thermalisation hypothesis (ETH). The ETH yields a significant reduction in computational cost of the quantum Lindblad simulation by ensuring a fast convergence of an arbitrary quantum state toward the target Gibbs states.

We complement our claims with extensive numerical studies of convergence speed and accuracy, both for quantum chaotic as well as integrable systems.