

**Arnold-Sommerfeld Center for Theoretical Physics  
Chair for Theoretical Nanophysics  
Priv.-Doz. Dr. Fabian Heidrich-Meisner**

**Sept. 22, 2015**

**Topic of the Master thesis in Physics: Thermalization in Electron-Phonon systems**

The topic of this concerns thermalization and relaxation dynamics in electron-phonon systems. This is a standard problem from condensed matter theory which we plan to revisit using the modern language of closed many-body systems and quantum information tools. The goals are the numerical investigation of relaxation dynamics, testing the validity of the eigenstate thermalization hypothesis and the analysis of entanglement properties.

Begin: Winter term 2015/16 or as soon as possible

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