Arnold-Sommerfeld Center for Theoretical Physics **Sept. 22, 2015**
Chair for Theoretical Nanophysics
Priv.-Doz. Dr. Fabian Heidrich-Meisner

Topic of the Master thesis in Physics: Real-time evolution using dynamical typicality

The topic of this thesis concerns the numerical study of nonequilibrium and transport properties of strongly correlated many-body systems. The concept of typicality ensures that finite temperature properties of such many-body systems can be obtained from suitably constructed pure states, giving access to both thermodynamics and dynamical properties. The goal of this thesis is the implementation of the dynamical typicality method, the testing of this implementation and its application to nonequilibrium transport in correlated nanostructures described by the Anderson impurity model.

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

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