Universität Bielefeld | Fakultät für Physik

Vortrag im Rahmen der Forschergruppe 2692

Condensed Matter Theory

# Seminar


## Christian Bartsch

**Universität Osnabrück**


# Equilibration of expectation values for statically and dynamically generated initial conditions


We investigate dynamical equilibration of expectation values in closed quantum systems for realistic non-equilibrium initial states. For statically generated initial states we find that the long time expectation values depend on the initial expectation values if eigenstate thermalization is violated. An analytical expression for the deviation from the expected ensemble value is derived for small displacements from equilibrium based on linear response theory. Analogous derivations show that this deviation vanishes for dynamically generated initial states, at least within the linear response regime. Additional numerics for magnetization and energy equilibration in an asymmetric anisotropic spin-1/2-ladder illustrate the behavior beyond linear response for both cases.


## Friday, 14.12.2018, 14:15 Uhr
## D2-240