Mesoscopic cold atom systems in and out of equilibrium

International Workshop
7 - 11 September 2020

The workshop will discuss progress and future directions of mesoscopic cold atom and related systems, in and out of equilibrium. Topics of interest include experimentally accessible observables, higher-order correlations, diffusion dynamics, developing and benchmarking effective low-energy theories, thermalization, and quantum engineering protocols.

Topics:
- How can we observe correlations between constituents such as atoms, molecules, quasi-particles or spins of mesoscopic systems?
- Can we tune a mesoscopic system from obeying the eigenstate thermalization hypothesis to violating it?
- How can we unambiguously observe the transition between incoherent and coherent quantum diffusion?
- What are the limits of state relaxation and engineering in non-adiabatic Hamiltonians?
- How can we experimentally and theoretically benchmark effective, nonequilibrium theories?

Invited speakers:
P. Bienias (US)
J. Bloch (FR)
J.-S. Caux (NL)
M.A. Garcia-March (ES)
F. Gerbier (FR)
M. Greiner (US)
C. Gross (DE)
S. Joachim (DE)
P. Massignan (ES)
G. Morigi (DE)
H.-C. Nägerl (AT)
M.M. Parish (AU)
C.A. Regal (US)
S. Reimann (SE)
A.M. Rey (US)
A. Sanpera (ES)
D.M. Weld (US)
H. Williams (FR)
L. You (CN)
M. Zaccanti (IT)
N.T. Zinner (DK)

Scientific coordinators:
Doerte Blume
Norman, OK, USA

Thomas Busch
Okinawa, Japan

Artur Widera
Kaiserslautern, Germany

Organisation:
Mandy Lochar
MPIPKS Dresden

Applications received before 30th April 2020 are considered preferentially.

Applications are welcome and should be made by using the application form on the event’s web page. The number of attendees is limited. The registration fee for the international workshop is 140 Euro and should be paid by all participants. Costs for accommodation and meals will be covered by the Max Planck Institute. Limited funding is available to partially cover travel expenses.

For further information please contact:
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We also offer individual fellowships (phd, postdoc, sabbatical). Applications are accepted continuously. For details, please check www.pks.mpg.de/visitors