

ZiF WORKSHOP

Fundamental Aspects of Statistical Physics and Thermodynamics

Convenors: Peter Reimann (Bielefeld)
Andreas Engel (Oldenburg)
Jochen Gemmer (Osnabrück)

27 – 30 March 2017

IN COOPERATION WITH:



MONDAY, 27 MARCH

9:30-9:40	Welcome address by Gernot Akemann (Member of ZiF's Board of Directors)
9:40-10:25	Christian Van den Broeck Brownian duet: A novel tale of thermodynamic efficiency
10:25-11:00	Coffee break
11:00-11:45	Hal Tasaki Efficient heat engines are powerless: Universal trade-off relation between current and dissipation
11:45-12:30	Juan Parrondo What is heat? The case of quantum collisional reservoirs
12:30-14:00	Lunch break
14:00-14:45	Masahito Ueda Gibbs paradox in mesoscopic systems
14:45-15:30	Udo Seifert Stochastic thermodynamics and the cost of precision
15:30-16:00	Coffee break
16:00-16:45	Barbara Drossel What statistical mechanics can teach us about the limits of quantum mechanics
16:45-17:30	Martin Holthaus Floquet condensates

TUESDAY, 28 MARCH

9:00-9:45	Anatoli Polkovnikov Quantum chaos, ETH and their implications to thermodynamics
9:45-10:30	Tony Short Equilibration time for a small system interacting with a thermal bath
10:30-11:00	Coffee break
11:00-11:45	Jens Eisert Out of equilibrium dynamics and many-body localization
11:45-12:30	Wojciech De Roeck Stability and instability of many-body localization with respect to ergodic grains
12:30-14:00	Lunch break
14:00-14:45	Robin Steinigeweg Dynamics of typical pure states in integrable quantum many-body systems
14:45-15:30	Michael Kastner Noninvasive measurement of dynamic correlation functions
15:30-16:00	Coffee break
16:00-16:30	Short talks on posters
16:30-18:30	Poster session
18:30	Dinner at ZiF

WEDNESDAY, 29 MARCH

9:00-9:45	Christian Maes What decides the direction of a current?
9:45-10:30	Pierre Gaspard Scattering approach to the thermodynamics of quantum transport
10:30-11:00	Coffee break
11:00-11:45	Stefan Kehrein Flow equation holography
11:45-12:30	Fabian Essler Quantum disentangled liquid states and the half filled Hubbard model

12:30-14:00	Lunch break
14:00-14:45	Massimiliano Esposito Thermodynamics, information and conservation laws in stochastic thermodynamics and chemical reaction networks
14:45-15:30	Peter Talkner Thermodynamics of open systems beyond weak coupling
15:30-16:00	Coffee break
16:00-16:45	Kristel Michielsen Quantum annealing and quantum spin dynamics

THURSDAY, 30 MARCH

9:00-9:45	Michele Campisi (Quantum) Volume entropy
9:45-10:30	Terry Farrelly Return to equilibrium on finite quantum lattice systems
10:30-11:00	Coffee break
11:00-11:45	Peter Reimann Typical temporal relaxation of isolated many-body systems
11:45-12:30	Jochen Gemmer Is the Jarzynski equation generically valid, even for strongly non-Gibbsian, pure initial quantum states?
12.30-14:00	Lunch
