

Microscopic Origins of Dissipation and Noise

October 31 - November 03, 2007
at the Max Planck Institute for Mathematics in the Sciences
Leipzig, Germany

Organisers:
Stephan Luckhaus, University of Leipzig (Germany)
Nicolas Dirr, University of Bath (UK)

Programme

All lectures will be held in room Leibniz-Hörsaal (G 10)

Wednesday

- 11.00 - 11.45 **Oliver Penrose**
Statistical mechanics in the femtosecond era
- Lunch**
- 14.30 - 15.15 **Leonid Bunimovich**
Mechanisms of Chaos
- Coffee**
- 15.45 - 16.30 **Carlangelo Liverani**
Fourier law and random walks in dynamical environment
- 16.35 - 17.20 **Robert S. Mackay**
Langevin equations for slow degrees of freedom of Hamiltonian systems
- 19.00 **Dinner in Morrison's Irish Pub**

Thursday

- 9.30 - 10.15 **Errico Presutti**
Some open problems in phase transitions
- 10.20 - 11.05 **Stefano Olla**
Microscopic (stochastic) models for thermal conductivity and Fourier's law
- Coffee**
- 11.35 - 12.20 **Lorenzo Bertini**
Large deviations for stochastic conservation laws

Lunch

14.30 - 15.15

Alexander Mielke

Plasticity as a limit for a chain with viscous, stochastic, bistable springs

Coffee

15.45 - 16.30

Jani Lukkarinen

Phonon Boltzmann equations and kinetic scaling limits of lattice systems

16.35 - 17.20

Florian Theil

tba

Friday

9.30 - 10.15

Jürg Fröhlich

tba

10.20 - 11.05

Laszlo Erdős

Derivation of Brownian motion from quantum mechanics

Coffee

11.35 - 12.20

Grigorios Pavliotis

Parameter estimation for multiscale diffusions

Lunch

14.30 - 15.15

Israel Michael Sigal

Effective dynamics of solitons

Coffee

15.45 - 16.30

Gero Friesecke

tba

Saturday

9.30 - 10.15

Valery Smyshlyaev

tba

10.20 - 11.05

Dimitrios Tsagkarogiannis

Coarse-graining schemes for stochastic lattice systems

Coffee

11.35 - 12.20

Lev Truskinovski

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