

Workshop on
“Scaling Limits and Effective Theories in Classical and Quantum Mechanics”

organized by

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September 22 - 26, 2014:

• **Monday, September 22, 2014**

09:00 – 09:30 **Opening & Registration**

09:30 – 10:20 **Herbert Spohn**

Equilibrium time correlations for quantum anharmonic chains

10:30 – 11:00 *coffee/tea break*

11:00 – 11:50 **Giovanni Gallavotti**

Equivalence of Non-Equilibrium Ensembles and Representation of Friction in Turbulent Flows: The Lorenz 96 Model

12:00 – 12:30 **Amit Einav**

Subadditivity of the entropy on a sphere

12:30 – 14:00 *lunch break*

14:00 – 14:50 **Maxime Hauray**

A quantum jump process modelling decoherence induced by the environment

15:00 – 15:30 **Sara Marino Aceituno**

A quantum jump process modelling decoherence induced by the environment

17:00 *Apero/Reception at Hotel Strudlhof (next to the ESI)*

• **Tuesday, September 23, 2014**

09:30 – 10:20 **Mario Pulvirenti**

Backward clusters, correlations and wild sums for a hard sphere system in a low density regime

10:30 – 11:00 *coffee/tea break*

11:00 – 11:50 **Thierry Bodineau**

The Brownian motion as the limit of a deterministic system of hard-spheres

12:00 – 12:30 **Giada Basile**

Fick's law for the Lorentz model

12:30 – 14:00 *lunch break*

14:00 – 14:50 **Laurent Desvillettes**
About the structure of Landau's operator of collision

15:00 – 15:50 **François Golse**
TBA

• **Wednesday, September 24, 2014**

09:30 – 10:20 **Mathieu Lewin**
Derivation of nonlinear Gibbs measures from many-body quantum mechanics

10:30 – 11:00 *coffee/tea break*

11:00 – 11:50 **Peter Pickl**
Mean field limits for gases of large volume

12:00 – 12:30 **Marcello Porta**
Mean-field evolution of fermionic systems

12:30 – 14:00 *lunch break*

14:00 – 14:50 **Jan Philip Solovej**
TBA

15:00 – 15:50 **Christian Hainzl**
On the time-dependent BCS equation

16:00 – 16:30 *break*

16:30 – 17:00 **Julien Sabin**
The Hartree equation for infinite quantum systems

17:00 – 17:30 **Paolo Antonelli**
On a class of nonlinear Schrödinger equations with nonlinear damping

18:15 *Social Dinner at "Heurigen Hengl-Haselbrunner")*

• **Thursday, September 25, 2014**

09:30 – 10:20 **Jani Lukkarinen**
Hydrodynamics without scaling limits: thermalization in harmonic particle chains with velocity flips

10:30 – 11:00 *coffee/tea break*

11:00 – 11:50 **Alexander V. Bobylev**
Boltzmann equation and hydrodynamics beyond the Navier-Stokes level

12:00 – 12:30 **Kleber Carrapatoso**
Kac's program for the Landau equation

12:30 – 14:00 *lunch break*

14:00 – 14:50 **Raffaele Esposito**
Stationary solutions to the Boltzmann equation and their hydrodynamic limit

15:00 – 15:30 **Mahir Hadzić**
On the small redshift limit of steady states of the Einstein-Vlasov system and their stability

- **Friday, September 26, 2014**

09:30 – 10:20 **Juan J. L. Velázquez**

Singularity formation for kinetic equations with cubic nonlinearities

10:30 – 11:00 *coffee/tea break*

11:00 – 11:50 **Robert Seiringer**

Validity of the Bogoliubov Approximation for the Excitation Spectrum of Weakly Interacting Bosons

12:00 – 12:30 **Phan Thanh Nam**

Bogoliubov correction to the Hartree dynamics of bosons

All talks take place at the ESI, Boltzmann Lecture Hall