
HYPERBOLIC DYNAMICAL SYSTEMS

Focus Week on

Nonequilibrium Processes

organized by H. Posch, D. Szasz, L.-S. Young

June 2nd to June 6th, 2008**Monday, June 2**

- 09:30 - 10:30 D. RUELLE Introductory lecture I:
Nonequilibrium statistical mechanics and smooth
dynamical systems
- Coffee break*
- 11:00 - 12:00 L. REY-BELLET Large deviations for billiards and nonuniformly
hyperbolic dynamical systems
- 14:00 - 15:00 F. BONETTO Perturbative methods for dynamical systems theory
and statistical mechanics
- 15:00 - 16:00 A. VULPIANI Some aspects of the fluctuation-dissipation relation
- Coffee break*
- 16:30 - 17:30 L.-S. YOUNG Reliability of neural oscillator networks

Tuesday, June 3

- 09:30 - 10:30 D. RUELLE Introductory lecture II:
Nonequilibrium statistical mechanics and smooth
dynamical systems
- Coffee break*
- 11:00 - 12:00 L. RONDONI Onset of diffusive behavior in confined transport systems
- 14:00 - 15:00 E. PRESUTTI Introductory lecture I:
Persistence of randomness in macroscopic limits
- 15:00 - 16:00 D. SANDERS Rare events and long-range correlations in systems with
many random walkers
- Coffee break*
- 16:30 - 17:30 D. MUKAMEL Ordering and criticality in one dimensional driven
systems

Wednesday, June 4

09:00 - 10:00 E. PRESUTTI Introductory lecture II:
Persistence of randomness in macroscopic limits

Coffee break

10:30 - 11:30 G. JONA-LASINIO Nonequilibrium thermodynamics: a self-contained
macroscopic description of diffusive systems

11:30 - 12:30 O. LANFORD Discretization of expanding maps and percolation on a
tree

Thursday, June 5

09:30 - 10:30 C.-A. PILLET Introductory lecture I:
C*-dynamical systems and nonequilibrium quantum
statistical mechanics

Coffee break

11:00 - 12:00 B. SCHLEIN Dynamics of Bose-Einstein condensates

14:00 - 15:00 A. KUPIAINEN Diffusion of energy in a coupled map lattice

15:00 - 16:00 G. BENETTIN The two-dimensional vs the one-dimensional Fermi-Pasta
Ulam problem

Coffee break

16:30 - 17:30 C.-A. PILLET Introductory lecture II:
C*-dynamical systems and nonequilibrium quantum
statistical mechanics

Friday, June 6

09:30 - 10:30 A. POLITI Heat conductivity as a testing ground for the
characterization of out-of-equilibrium steady states

Coffee break

11:00 - 12:00 Ph. JACQUET Transport properties of a chain of dynamical quantum
dots

14:00 - 15:00 J.-P. ECKMANN A model of heat transport

15:00 - 16:00 P. GASPARD Heat conduction and Fourier's law in a class of many-
particle dispersing billiards

All lectures take place at the Boltzmann lecture hall