

Workshop IV: Asymptotic Methods for Dissipative Particle Systems

Monday May 18, 2009

- 8:30–8:50 *Check-In/Light Breakfast (Hosted by IPAM)*
- 8:55–9:00 *Welcome and Opening Remarks*
- 9:00–9:50 **Robert Pego** (Carnegie-Mellon University)
Self-similarity and eternal solutions for a model of min-driven clustering
- 10:00–10:15 *Break*
- 10:15–11:05 **Wolfgang Wagner** (Weierstraß-Institut für Angewandte Analysis und Stochastik (WIAS))
Fragmentation equations and stochastic models
- 11:15–11:30 *Break*
- 11:30–12:20 **Rossana Marra** (Università degli Studi di Roma "Tor Vergata")
Kinetic models of phase transition
- 12:30–2:30 *Lunch (on your own)*
- 2:30–3:20 **Fraydoun Rezakhanlou** (University of California, Berkeley (UC Berkeley))
The Evolution of a Tagged Particle in the Boltzmann–Grad Limit
- 3:30–4:00 *Break*
- 4:00–4:50 **Miguel Escobedo** (Universidad del País Vasco)
Non zero flux solutions for homogeneous kinetic equations.
- 5:00–7:00 *Reception and Poster Session (Hosted by IPAM)*

Tuesday May 19, 2009

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:50 **Michael Loss** (Georgia Institute of Technology)
The Markov Sequence Problem for Jacobi Polynomials
- 10:00–10:15 *Break*
- 10:15–11:05 **Bernt Wennberg** (Chalmers University of Technology/University of Göteborg)
Kinetic models for the collective behavior of fish schools
- 11:15–11:30 *Break*

(Tuesday schedule continued on next page)



(Tuesday schedule continued from previous page)

- 11:30–12:20 **Irene Gamba** (University of Texas at Austin)
Extensions of the Kac N -particle model to multi-particle interactions
- 12:30–2:30 *Lunch (on your own)*
- 2:30–3:20 **Govind Menon** (Brown University)
Kinetic models for shock collisions and Burgers turbulence.
- 3:30–4:00 *Break*
- 4:00–4:50 **Thierry Goudon** (Institut National de Recherche en Informatique Automatique (INRIA))
Regularity Analysis for Systems of Reaction-Diffusion Equations

Wednesday May 20, 2009

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:50 **Eli Ben-Naim** (Los Alamos National Laboratory)
Strong Transport in Weakly Disordered Systems
- 10:00–10:15 *Break*
- 10:15–11:05 **Jani Lukkarinen** (Suomen Akatemia (Academy of Finland))
Proof of the kinetic conjecture in a weakly nonlinear Schrodinger equation with random initial data
- 11:15–11:30 *Break*
- 11:30–12:20 **María Caceres** (University of Granada)
The BGK model with external confining potential
- 12:30–2:30 *Lunch (on your own)*
- 2:30–3:20 **Clement Mouhot** (Centre National de la Recherche Scientifique (CNRS))
On the Landau damping
- 3:30–4:00 *Break*
- 4:00–4:50 **Xuguang Lu** (Department of Mathematical Sciences, Tsinghua University)
Exponential Convergence to Equilibrium for Measure Solutions of the Specially Homogeneous Boltzmann Equation

Thursday May 21, 2009

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:50 **Silvia Caprino** (Università degli Studi di Roma "Tor Vergata")
On a Plasma-Charge Model
- 10:00–10:15 *Break*

(Thursday schedule continued on next page)

(Thursday schedule continued from previous page)

- 10:15–11:05 **Raffaele Esposito** (Università di L'Aquila)
Some stability problems in Kinetic Theory
- 11:15–11:30 *Break*
- 11:30–12:20 **Anne Nouri** (Université d'Aix-Marseille I (Université de Provence))
Kinetic stability of the Rayleigh-Benard problem
- 12:30–2:30 *Lunch (on your own)*
- 2:30–3:20 **Jacek Polewczak** (California State University, Northridge (CSU Northridge))
On stochastic models of inert and reactive dense fluids
- 3:30–4:00 *Break*
- 4:00–4:50 **Pavel Dubovski** (Stevens Institute of Technology)
On coagulation transport processes with diffusion

Friday May 22, 2009

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:50 **Mario Pulvirenti** (Università di Roma "La Sapienza")
Kinetic equations as scaling limits of particle systems
- 10:00–10:15 *Break*
- 10:15–11:05 **Philippe Laurencot** (Centre National de la Recherche Scientifique (CNRS))
The Oort-Hulst-Safronov coagulation equation: finite speed of propagation and self-similar solutions
- 11:15–11:30 *Break*
- 11:30–12:20 **Eric Carlen** (Rutgers University)
Controlled Concentration and Long time Behavior of the Critical Mass Keller-Segel Equation

