

Workshop I: Aspects of Optimal Transport in Geometry and Calculus of Variations

Monday March 31, 2008

- 8:00–8:45 *Check-In/Light Breakfast (Hosted by IPAM)*
- 8:45–9:00 *Welcome and Opening Remarks*
- 9:00–9:50 **David Kinderlehrer** (Carnegie-Mellon University)
Modeling transport at small scales and related issues
- 10:00–10:15 *Break*
- 10:15–11:05 **Irene Gamba** (University of Texas at Austin)
Probability evolution for complex multi-linear non-local interactions
- 11:15–11:30 *Break*
- 11:30–12:20 **Boris Khesin** (University of Toronto)
A nonholonomic Moser theorem and subriemannian submersion
- 12:30–2:30 *Lunch (on your own)*
- 2:30–3:20 **Martial Agueh** (University of Victoria)
A class of total variation minimization problems on the whole space
- 3:30–4:00 *Break*
- 4:00–4:50 **Karl Sturm** (Rheinische Friedrich-Wilhelms-Universität Bonn)
- 5:00–6:30 *Reception and Poster Session (Hosted by IPAM)*

Tuesday April 1, 2008

- 8:00–8:45 *Continental Breakfast*
- 9:00–9:50 **Ovidiu Savin** (Columbia University)
On Monge-Ampère equations with homogenous right hand side
- 10:00–10:15 *Break*
- 10:15–11:05 **Marco Di Francesco** (Università di L'Aquila)
Self-similar decay and generalizations via Optimal Transport and moment normalization. State of the art and open problems
- 11:15–11:30 *Break*

(Tuesday schedule continued on next page)



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- 11:30–12:20 **Wilfrid Gangbo** (Georgia Institute of Technology)
Poisson structure and Hamiltonian ODEs on the set of probability measures
- 12:30–2:00 *Lunch (on your own)*
- 2:00–2:50 **Michael Westdickenberg** (Georgia Institute of Technology)
Optimal Transport for the System of Isentropic Euler equations
- 3:00–3:15 *Break*
- 3:15–4:05 **Adrian Tudorascu** (Georgia Institute of Technology)
Euler–Poisson systems as action-minimizing paths in the Wasserstein space
- 4:15–4:30 *Break*
- 4:30–5:20 **Panagiota Daskalopoulos** (Columbia University)
On the Harmonic Mean Curvature FLOW

Wednesday April 2, 2008

- 8:00–8:45 *Continental Breakfast*
- 9:00–9:50 **Juan Vazquez** (Autonomous University of Madrid)
Asymptotics of Fast Diffusion Equations by Entropy Methods
- 10:00–10:15 *Break*
- 10:15–11:05 **Dejan Slepcev** (Carnegie-Mellon University)
On a nonlocal model of biological aggregation
- 11:15–11:30 *Break*
- 11:30–12:20 **Maria Carvalho** (University of Lisbon)
About the Homogeneous Cooling State for Inelastic Maxwellian Collisions
- 12:30–2:30 *Lunch (on your own)*
- 2:30–3:20 **Nassif Ghoussoub** (University of British Columbia)
A new polar decomposition for vector fields
- 3:30–4:00 *Break*
- 4:00–4:50 **Luis Caffarelli** (University of Texas at Austin)
Non local minimal surfaces

Thursday April 3, 2008

- 8:00–8:45 *Continental Breakfast*
- 9:00–9:50 **Peter Markowich** (University of Cambridge)
Reaction-Diffusion (-Convection) Equations, Entropies and Sobolev Inequalities
- 10:00–10:15 *Break*
- 10:15–11:05 **Gerard Misiolek** (University of Notre Dame)
Singularities of the exponential map on the group of volume-preserving diffeomorphisms
- 11:15–11:30 *Break*
- 11:30–12:20 **Klemens Fellner** (University of Cambridge)
- 12:30–2:30 *Lunch (on your own)*
- 2:30–3:20 **Giuseppe Buttazzo** (Università di Pisa)
Optimal Dirichlet regions for mass transportation problems and for elliptic equations
- 3:30–4:00 *Break*
- 4:00–4:50 **Shizan Fang** (Université de Bourgogne (Dijon))
Wasserstein space over the Wiener space

Friday April 4, 2008

- 8:00–8:45 *Continental Breakfast*
- 9:00–9:50 **Robert McCann** (University of Toronto)
Curvature and the continuity of optimal transportation maps
- 10:00–10:15 *Break*
- 10:15–11:05 **Eric Carlen** (Rutgers University New Brunswick/Piscataway)
- 11:15–11:30 *Break*
- 11:30–12:20 **Stefano Bianchini** (International School for Advanced Studies (SISSA/ISAS))
On the c -monotonicity condition for optimal transportation
- 12:30–1:45 *Lunch (on your own)*

