

# Nonconvex Evolution Problems

Rome, November 30 - December 3, 2010

# Program

Tuesday, November 30th, 2010, afternoon



13.30 – 14.45 **Welcome lunch** 



14.45 - 15.30

speaker Nicholas ALIKAKOS (University of Athens, Greece)

Heteroclinic traveling waves of gradient diffusion systems.



15.30 - 16.15

speaker Johannes ZIMMER (University of Bath, United Kingdom)

Ill-posed problem in nonlinear elasticity: Macro and micro.



16.15 - 16.45 **Coffee break** 



16.45 - 17.30

speaker Giovanni BELLETTINI ("Tor Vergata" Università di Roma, Italy)

Remarks on a Perona-Malik type equation:

Convergence of discrete approximations for large times.

Wednesday, December 1st, 2010, morning



10.00 - 10.45

speaker Amy NOVICK-COHEN (Technion - Israel Institute of Technology, Israel)

The thin film equation with lower order destabilizing forcing.



10.45 - 11.30

speaker Andrea TERRACINA ("Sapienza" Università di Roma, Italy)

Two phase entropy solutions for forward-backward parabolic problems.



11.30 – 12.00 **Coffee break** 



12.00 - 12.45

speaker Juan José Lopez VELÀZQUEZ (Universidad Complutense de Madrid, Spain)

Qualitative properties of solutions of coagulation equations.

#### Wednesday, December 1st, 2010, afternoon



12.45 – 14.30 **Lunch** 



14.30 - 15.15

speaker

Alain MIRANVILLE (Université de Poitiers, France)

The Cahn-Hilliard equation with dynamic boundary conditions.



15.15 - 16.00

speaker

Maurizio GRASSELLI (Politecnico di Milano, Italy)

Singularly perturbed Cahn-Hilliard equations.

#### Thursday, December 2nd, 2010, morning



10.00 - 10.45

speaker

Mark A. PELETIER (Technische Universiteit Eindhoven, The Netherlands) Passing to the limit in the Wasserstein gradient-flow formulation.



10.45 - 11.30

speaker

Paolo BUTTÀ ("Sapienza" Università di Roma, Italy)

Navier-Stokes equations on the flat cylinder with vorticity production on the boundary.



11.30 – 12.00 **Coffee break** 



12.00 - 12.45

speaker

Ulisse STEFANELLI (IMATI - CNR, Italy)

A new variational view at Lagrangian mechanics.

### Thursday, December 2nd, 2010, afternoon



12.45 - 14.30 **Lunch** 



14.30 - 15.15

speaker

Philippe LeFLOCH (Université de Paris VI and CNRS, France)

Self-similar vanishing viscosity-capillarity limits.



15.15 - 16.00

speaker

Rinaldo M. COLOMBO (Università di Brescia, Italy)

Phase transitions in hyperbolic models.

## Friday, December 3rd, 2010, morning



10.00 - 10.45

speaker

Lorenzo BERTINI ("Sapienza" Università di Roma, Italy)

Boundary effects in the gradient theory of phase transitions.



10.45 - 11.30

speaker

Giorgio FUSCO (Università dell'Aquila, Italy)

Remarks on the dynamics of some forward-backward parabolic equations.



11.30 - 12.00 **Coffee break** 



12.00 - 12.45

speaker

Felix OTTO (Universität Bonn, Germany)

Pattern formation and Partial Differential Equations.

End of the Workshop