

**Programme on
“Nonlinear Flows”
May 30 – July 15, 2016**

organized by

**Eduard Feireisl (Czech Academy of Sciences, Prague), Ansgar Jüngel (TU Vienna),
Alexander Mielke (WIAS, Berlin), Giuseppe Savaré (U Pavia), Ulisse Stefanelli (U Vienna)**

Workshop 2

“Variational and hamiltonian structures: models and methods”

July 11 – 14, 2016

• **Monday, July 11, 2016**

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

09:30 – 10:05 **Marta Lewicka**

From Monge-Ampere anomalies to shape formation

10:10 – 10:45 **Jan Maas**

Gradient flow structures for density matrices

10:45 – 11:30 *coffee / tea break*

11:30 – 12:05 **Karl-Theodor Sturm**

Gradient flows on time-dependent metric measure spaces and super-Ricci flows

12:10 – 12:45 **Matthias Liero**

Gradient structures for reaction-diffusion systems and optimal entropy-transport problems

• **Tuesday, July 12, 2016**

09:30 – 10:05 **Barbara Niethammer**

Coarsening in a model with local interactions

10:10 – 10:45 **Marco Morandotti**

Relaxation of disarrangement densities

10:45 – 11:30 *coffee / tea break*

11:30 – 12:05 **Tomáš Roubíček**

Waves in solids involving inelastic processes and their efficient numerical approximation

12:10 – 12:45 **Francesco Patacchini**

Convergence of a particle method for diffusive gradient flows in one dimension

- **Wednesday, July 13, 2016**

09:30 – 10:05 **Antonio Segatti**

Variational models for nematic shells

10:10 – 10:45 **Elisa Davoli**

Homogenization of integral energies under periodically oscillating differential constraints

10:45 – 11:30 *coffee / tea break*

11:30 – 12:05 **Bianca Stroffolini**

A tour of Lipschitz truncations

12:10 – 12:45 **Edoardo Mainini**

Stability of carbon nanotubes: a variational approach

- **Thursday, July 14, 2016**

09:30 – 10:05 **Philippe Laurençot**

Convergence to self-similarity for a thin film Muskat problem

10:10 – 10:45 **Manuel Friedrich**

The geometry of C_{60}

10:45 – 11:30 *coffee / tea break*

11:30 – 12:05 **Michael Herrmann**

Hysteresis and propagating lattice interfaces

12:10 – 12:45 **Georgy Kitavtsev**

Surface energies arising in microscopic modelling of martensitic transformations

All talks take place at the ESI, Boltzmann Lecture Hall!