

**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 **Andrea Braides**

*Homogenization of a crystalline flow in a heterogeneous medium*

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**

09:00 – 9:35 **Philippe Laurençot**

*Convergence to self-similarity for a thin film Muskat problem*

09:40 – 10:15 **Manuel Friedrich**

*The geometry of  $C_{60}$*

10:20 – 10:55 **Michael Herrmann**

*Hysteresis and propagating lattice interfaces*

10:55 – 11:30 *coffee / tea break*

11:30 – 12:05 **Georgy Kitavtsev**

*Surface energies arising in microscopic modelling of martensitic transformations*

12:10 – 12:45 **Barbara Niethammer**

*Coarsening in a model with local interactions*

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