Programme on
“Nonlinear Flows”

organized by
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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!**