Workshop Calculus of Variations
4th – 6th October 2023

DGD | SFB TRR 109 | Discretization in Geometry and Dynamics

Speakers and Talks:

Annika Bach: (Technical University of Eindhoven)
Discrete-to-continuum variational analysis for Ising and Spin models

Marco Bresciani: (FAU Erlangen-Nürnberg)
Variational models with Eulerian-Lagrangian formulation allowing for material failure

Luca Briani: (Technical University of Munich)
A shape optimization problem involving the torsion function and a related hexagonal structure

Janusz Ginster: (Humboldt University of Berlin)
Formation of Microstructure for Singularly Perturbed Problems: From Helimagnets to Shape-Memory Alloys and Domain Dependence

Rossella Giorgio: (Technical University of Vienna)
Nonlocal justification of antisymmetric exchange functionals.

Leon Happ: (Technical University of Vienna)
A scale independent continuous extension operator for maps on microperforated domains mapping into a target manifold

Tim Heilmann: (Technical University of Munich)
A Gamma-convergence result for the theory of phase transitions: double-well problem for gradients of vector-valued functions with surfactant

Melanie Koser: (Humboldt University of Berlin)
Pattern formation in a two-dimensional frustrated spin system

Andrea Kubin: (Technical University of Munich)
On area-preserving mean curvature flow in two dimensions, discrete and continuum analysis

Lennart Machill: (University of Münster)
Title: Derivation of von Kármán theories for viscoelastic solids

Roberta Marziani: (TU Dortmund/University of L'Aquila)
Non-local approximation of free-discontinuity problems in linear elasticity

Fumihiko Onoue: (Technical University of Munich)
Small liquid drops minimizing a long-range interaction energy

Gianluca Orlando: (Politecnico di Bari)
Chirality transitions in a frustrated spin model

Matthias Ruf: (Ecole polytechnique fédérale de Lausanne)
On the Lavrentiev phenomenon for vector-valued, convex integral functionals

Giorgio Saracco: (Università di Trento)
Bijections between isoperimetric sets, prescribed curvature sets, and p-Cheeger sets

Antonio Tribuzio: (University of Bonn)
Scaling laws for multi-well nucleation problems

Konstantinos Zemas: (University of Münster)
Energy barriers for boundary nucleation in a two-well model: The gauge-free case