

## 2. GAMM Seminar on Phase-Field-Modelling

### Scientific Program

Thursday, February 5, 2015

	<b>Speaker</b>	<b>Title</b>
13:30 – 13:50	<b>Opening</b>	
13:50 – 14:15	Müller	Size effects in the domain structure evolution of ferroelectric materials
14:15 – 14:40	Kutter	A Two-Scale-Phase-Field Model for Liquid Phase Epitaxy with Elasticity
14:40 – 15:05	Boussinot	Elimination of surface diffusion in the non-diagonal phase field model
15:05 – 15:30	Yi	Phase field modelling of ferromagnetic nanostructures
15:30 – 16:05	<b>Coffee break</b>	
16:05 – 16:30	Mosler	On homogenization assumptions in phase field approaches – variational principles and algorithmic formulations
16:30 – 16:55	Moj	A continuummechanical, bi-phasic, two-scale model for thermal driven phase transition during solidification
16:55 – 17:20	Schneider	Elasto-plastic phase-field model based on mechanical jump conditions
17:20 – 17:45	Kochmann	Phase-field modeling of martensitic phase transformations coupled with crystal plasticity
19:00	<b>Conference dinner</b>	

Friday, February 6, 2015

	<b>Speaker</b>	<b>Title</b>
9:30 – 9:55	Kamlah	Phase-field modeling of the interaction of diffusion and mechanics in electrode particles of lithium ion batteries
9:55 – 10:20	Spatschek	Scale bridging modeling of hydride formation
10:20 – 10:35	<b>Coffee break</b>	
10:35 – 11:00	Kuhn	A phase field approach to determine the effective fracture resistance of composite materials
11:00 – 11:25	De Lorenzis	Phase-field modeling of ductile fracture
11:25 – 11:50	Gerasimov	Algorithmic aspects of the efficient phase-field computing of fracture
11:50 – 13:00	<b>Lunch</b>	
13:00 – 13:25	Hesch	Isogeometric analysis and hierarchical refinement for higher-order phase-field models
13:25 – 13:50	Schuß	Isogeometric analysis of an extended Cahn-Hilliard phase-field model using hierarchical refinement
13:50 – 14:15	Metsch	Isogeometric analysis of the Cahn-Hilliard phase-field model - A convergence study
14:15 – 14:40	Zhao	Isogeometric analysis of coupled Cahn-Hilliard diffusion in hyperelastic solids with changing elastic properties in Li-ion batteries
14:40 – 15:05	Hofmann	Intercalation dynamics in Lithium-Ion batteries
15:05	<b>Closing</b>	