

September 14 - 17, 2009

**Numerical Methods for Partial Differential Equations on Surfaces**

Name	Vortragstitel
Paulo Amorim	Finite volume methods and error estimates for hyperbolic conservation laws on manifolds
John W. Barrett	Parametric approximation of geometric evolution equations
Soeren Bartels	Robust approximation of phase field models past topological changes
Alan Demlow	Higher-order surface FEM
Qiang Du	Numerical methods for some interface problems
Charles M. Elliott	Surface finite element method for two phase geometric biomembranes
Sashikumaar Ganesan	Isoparametric finite element method for partial differential equations on surfaces
Harald Garcke	The Stefan problem with anisotropic Gibbs-Thomson law: Analysis and numerical computations
Jan Giesselmann	Finite volume schemes based on differential forms
Jonas Hahnle	Numerical approximations of the Mumford-Shah and Mumford-Shah-Euler functional for unit vector fields
Dirk Hartmann	Multiscale mechanics of red blood cells
Christiane Helzel	Finite volume methods for hyperbolic PDEs on the sphere
Michael Holst	Convergence of Adaptive Finite Element Methods for Nonlinear Geometric PDE
Ralf Kornhuber	Adaptive multigrid methods for partial differential equations on surfaces
John Mackenzie	A computational model of cell movement using a hybrid level set method and an ALE-SFEM method
Maurizio Paolini	Some aspects in the numerical approximation of surfaces evolving by anisotropic mean curvature
Arnold Reusken	Numerical methods for interface PDEs in two-phase incompressible flows
Martin Rumpf	A finite volume scheme for transport and diffusion on evolving surfaces
Friedhelm Schieweck	A new stable time discretization of higher order for evolution equations in a Hilbert space
Björn Stinner	On a diffuse interface method for an advection diffusion equation on a moving surface
Knut Erik Teigen	A diffuse-interface method for two-phase flows with soluble surfactants
Axel Voigt	Ordering on curved surfaces