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Leibniz  
Universität  
Hannover

Oberseminar  
Analysis und Theoretische Physik

**Prof. Dr. Helmut Abels**

Universität Regensburg

**Cahn–Hilliard Equation with  
Nonlocal Singular Free Energies**

We consider a Cahn–Hilliard equation which is the conserved gradient flow of a nonlocal total free energy functional. This functional is characterized by a Helmholtz free energy density, which can be of logarithmic type. Moreover, the spatial interactions between the different phases are modeled by a singular kernel. As a consequence, the chemical potential contains an integral operator acting on the concentration difference, instead of the usual Laplace operator. We analyze the equation on a bounded domain subject to no-flux boundary condition and by assuming constant mobility.

**Dienstag, 6.5.2014, 15:15h, Raum g005  
Hauptgebäude der Leibniz Universität**

Dazu laden herzlich ein:  
Prof. Dr. Joachim Escher  
Prof. Dr. Olaf Lechtenfeld  
Prof. Dr. Elmar Schrohe  
Prof. Dr. Christoph Walker