



Einladung zum Oberseminar Mathematik in den Naturwissenschaften

Julius-Maximilians-Universität Würzburg
Lehrstuhl für Mathematik in den Naturwissenschaften

Helmut Abels

Universität Regensburg

Diffuse Interface Models for Two-Phase Flows of Incompressible Fluids and Their Sharp Interface Limits

We will discuss so-called "diffuse interface models" for the flow of two viscous incompressible Newtonian fluids in a bounded domain. Such models were introduced to describe the flow when singularities in the interface, which separates the fluids, (droplet formation/coalescence) occur. The fluids are assumed to be macroscopically immiscible, but a partial mixing in a small interfacial region is assumed in the model. Such kind of models became popular during the last decade for theoretical as well as numerical studies. We will give an overview of known analytic results on well-posedness and will discuss recent results on convergence of diffuse to sharp interface models.

Ort: Mathematik Ost, 40.03.003

Zeit: Donnerstag, 05.12.19 um 12:00 Uhr

Zu diesem Vortrag sind Sie herzlich eingeladen.

gez. Anja Schlömerkemper