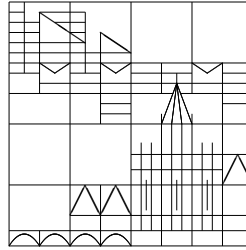


**Universität Konstanz**  
**Fachbereich**  
**Mathematik und Statistik**



**Prof. Dr. Robert Denk**  
**apl. Prof. Dr. Michael Dreher**  
**Prof. Dr. Reinhard Racke**  
**Prof. Dr. Oliver Schnürer**  
(Oliver.Schnuerer at uni-konstanz.de)

Konstanz, den 8. November 2012

Im  
Oberseminar Partielle Differentialgleichungen  
wird am  
**Donnerstag, dem 15. November 2012,**  
folgender Vortrag gehalten:

Prof. Dr. Helmut Abels (Universität Regensburg):  
*“Diffuse and Sharp Interface Models for Two-Phase Flows  
with Different Densities”*

**Zeit: 15:15 Uhr**

**Raum: F 426**

Interessenten sind herzlich willkommen!

R. Denk, M. Dreher, R. Racke, O. Schnürer

**Abstract:** We discuss a recent model for the two-phase flow of two immiscible, incompressible fluids in the case when the densities of the fluids are different. 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. We will present results on existence of weak solutions for this model in the case of non-degenerate mobility and discuss the sharp interface limit of these models.

(invited by Prof. Dr. Robert Denk)