FOURTH WORKSHOP
”Micro-Macro Modelling and Simulation of Liquid-Vapour Flows”

February, 4th – 6th, 2009
Room 008, Hauptgebäude, RWTH Aachen University

Program

Wednesday, February 4th
13:30 - 14:00 Registration
14:00 - 14:15 Opening
14:15 - 15:00 Eduard Feireisl (Academy of Sciences of the Czech Republic)
Asymptotic behavior of complex fluid systems
15:00 - 15:30 Jenny Haink (Uni Stuttgart)
Theory and Applications of Local Discontinuous Galerkin Schemes in Phase Transition Theory
15:30 - 16:00 Coffee Break
16:00 - 16:45 Helmut Abels (MPI Leipzig)
Diffuse Interface Models for Compressible and Incompressible Viscous Fluids
16:45 - 17:15 Fathollah Varnik (Ruhr-University Bochum)
Stability and dynamics of droplets

Thursday, February 5th
9:00 - 9:45 Charles Elliott (University of Warwick)
Computational surface partial differential equations
9:45 - 10:15 Mathieu Bachmann (RWTH Aachen)
Numerical Simulation of Cavitation Bubbles by Compressible Two-Phase Fluids
10:15 - 10:45 Coffee Break
10:45 - 11:30 Christophe Chalons (Paris VII)
Numerical approximation of a two fluid two pressure diphasic model
11:30 - 12:00 Philippe Helluy (Uni Strasbourg)
A simple entropy fix for the VFRoe schemes
12:00 - 13:30 Lunch
Thursday, February 5th (continued)

13:45 - 14:30 Marcus Herrmann (Arizona State University)  
*Detailed Simulations of Turbulent Liquid Jet Atomization*

14:30 - 15:00 Boris Haspot (Uni Heidelberg)  
*Existence of weak solution for compressible fluid models of Korteweg type*

15:00 - 15:15 Ali Zein (Uni Magdeburg)  
*On the modeling and simulation of laser-induced cavitation bubbles*

15:15 - 15:30 Maren Hantke (Uni Magdeburg)  
*Bubble dynamics in a compressible liquid with phase transition*

15:30 - 16:00 Coffee Break

16:00 - 16:45 Dieter Bothe (RWTH Aachen)  
*Modeling and simulation of two-phase flows with mass transfer*

16:45 - 17:15 Mohsen Alizadeh (Uni Göttingen)  
*Bubble dynamics and shock waves*

19:30 - 22:00 Dinner (Restaurant Magellan)

Friday, February 6th

9:00 - 9:30 Dietmar Kröner (Uni Freiburg)  
*Interface jump condition for the Navier-Stokes-Korteweg model*

9:30 - 10:00 Wolfgang Dreyer (WIAS Berlin)  
*Sharp interface limits of phase field models in the context of liquid-vapor transitions*

10:00 - 10:30 Coffee Break

10:30 - 11:00 Peng Zeng (RWTH Aachen)  
*Simulation of primary breakup for diesel spray with phase transition*

11:00 - 11:30 Christian Dickopp (RWTH Aachen)  
*A homogeneous model for bubbly liquids*

11:30 - 11:45 Closing