

Workshop of the International Graduate College 710 „Complex Processes: Modeling, Simulation and Complex Processes“

## ***Understanding and Control of Complex Chemical Processes***

E. Gutheil (IWR Heidelberg), J. Gorecki (ICM Warsaw)

IWR, INF 368, R. 432

### **Schedule:**

#### **Monday, Oct. 10, 2005**

- 9.00 - 9.45 Non-equilibrium effects related to thermally activated processes - Microscopic simulations and theory (J. Gorecki, ICM Warsaw)
- 9.50 -10.35 Modeling of laminar spray flows in the counterflow configuration (E. Gutheil, IWR Heidelberg)
- 10.35-11.00 Coffee break
- 11.00-11.45 Combustion chemistry: The role of reaction kinetics (M. Braun-Unkloff, DLR Stuttgart)
- 11.50-12.35 Simulations and simple models for local spatial correlations of reagents generated by a chemical reaction (J. Gorecki, ICM Warsaw)

#### **Tuesday, Oct. 11, 2005**

- 9.00 - 9.45 PDF modeling of turbulent non-reactive and reactive flows (H.-W. Ge, IWR Heidelberg)
- 9.50 -10.35 Influence of the LOX injector wall thickness on atomization and combustion of CH<sub>4</sub>/LOX mixtures (M. DeRosa, DLR Lampoldshausen and IWR Heidelberg)
- 10.35-11.00 Coffee break
- 11.00-11.45 Diffusion controlled reactions – what can one learn from molecular dynamics simulations for model systems (J. Gorecki, ICM Warsaw)
- 11.50-12.35 Optimal control of self-organization for analysis and manipulation of biochemical systems (D. Lebiecz, IWR Heidelberg)