Dr. Barbara Witter
Coordinator of the IMPRS
International Max Planck Research School
for Analysis, Design, and Optimization
in Chemical and Biochemical Process Engineering

MPI for Dynamics of Complex Technical Systems
Sandtorstrasse 1, 39106 Magdeburg, Germany
ph: ++49(0)391 6110 209
fx: ++49(0)391 6110 645
imprs@mpi-magdeburg.mpg.de
http://www.pe-imprs.mpg.de

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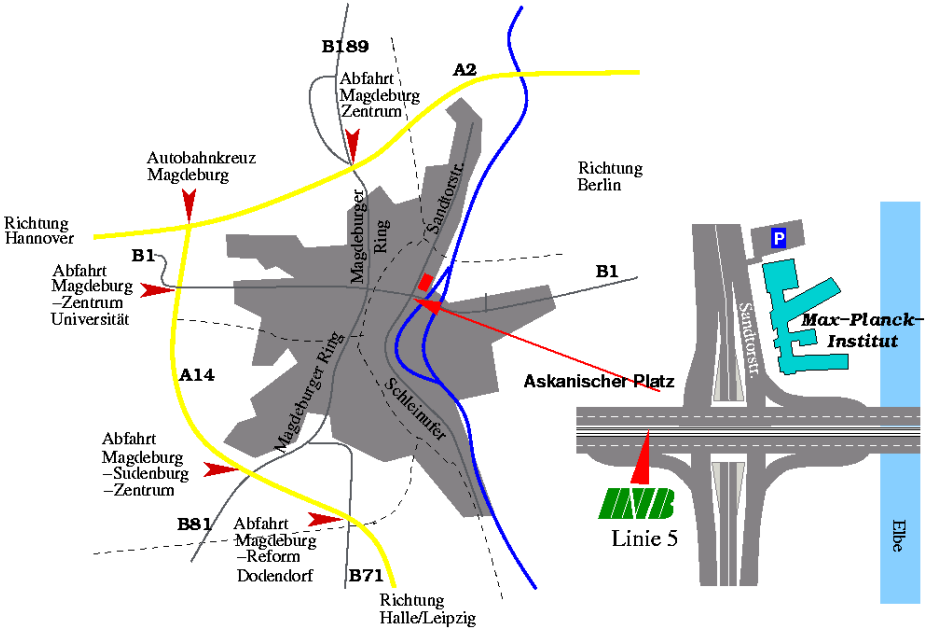
MAGDEBURG



Max Planck Institute for
Dynamics of Complex Technical Systems
&
Otto von Guericke University Magdeburg

1st summer school of the IMPRS Magdeburg:

THE THEORY OF PROCESS ENGINEERING

September 28th - October 2nd, 2009

at the
Max Planck Institute for
Dynamics of Complex Technical Systems
Sandtorstr. 1 (Askanischer Platz), Magdeburg

IMPRS Magdeburg

International Max Planck Research School for Analysis, Design, and Optimization in Chemical and Biochemical Process Engineering

Objective:

The objective of the International Max Planck Research School Magdeburg (IMPRS Magdeburg) is to provide excellent training and doctoral research in the field of the analysis, the design and the optimization in chemical and biochemical processes engineering. The IMPRS Magdeburg was founded in 2007. By now more than 30 doctoral students are participating in the IMPRS.

A core component of the IMPRS is the organization of summer schools. The aim of the 2009 summer school is to offer an introduction to the theoretical fundamentals of process engineering.
Internationally well known experts are invited to give lectures on their field of expertise. Doctoral students of the IMPRS Magdeburg as well as those working on similar topics are invited to participate in this one-week-course to gain new views on their field of interest and to obtain a profound introduction to the topic.

Participants are invited to present their doctoral project on a poster in the foyer of the MPI Magdeburg.

Scientific Committee:

Prof. Rolf Findeisen, Otto-von-Guericke University
M.Sc. Roberto Lemoine, Otto-von-Guericke University
Prof. Udo Reichl, MPI Magdeburg
Prof. Andreas Seidel-Morgenstern, MPI Magdeburg
PD Dr. Annegret Wagler, Otto-von-Guericke University

Organization:

Dr. Barbara Witter, Coordinator of the IMPRS, MPI Magdeburg

Registration at:

www.pe-imprs.mpg.de/summerschool

Sunday, September 27	**Speakers Dinner (invited speakers)**
Monday, September 28	**Modeling and Simulation**
9:00-12:00 h James B. Rawlings (University of Wisconsin, Madison, USA)	Process Modeling
14:00-17:00 h Volker Mehrmann (TU Berlin, Germany)	Simulation and Analysis of Dynamical Systems
Tuesday, September 29	**Optimization**
9:00-12:00 h Stephen Wright (University of Wisconsin, Madison, USA)	Theory and Numerical Solution of Optimization Problems
14:00-17:00 h Lorenz Biegler (Carnegie Mellon University, Pittsburgh, USA)	Dynamic Processes Optimization
Wednesday, September 30	**Applications I**
9:00-10:30 h Manuel Carrondo (Universidade Nova de Lisboa, Portugal)	Bioprocess Engineering
11:00-12:30 h Rui Oliveira (Universidade Nova de Lisboa, Portugal)	Hybrid Semiparametric Systems: a Systems Biology Perspective
13:30–17:30 h	Excursion to the Magdeburg Water Bridge
Thursday, October 1	**Fundamentals**
9:00-12:00 h Johannes P. Schlöder & Hans-Georg Bock (University of Heidelberg, Germany)	Parameter Estimation and Optimal Experimental Design
14:00–17:00 h Rolf Findeisen (University Magdeburg, Germany)	Fundamentals of Process Control
Friday, October 2	**Applications II**
9:00-10:30 h Gerhart Eigenberger (University of Stuttgart, Germany)	Thermal Pattern Analysis for the Design of Fixed-Bed Reactors
11:00-12:30 h Marco Mazzotti (ETH Zurich, Switzerland)	Theory of Separation Processes