IGK 710 Annual Colloquium 2006

Friday 01.12.2006

14:00 - 14:10	**Welcome by R. Rannacher**	
14:10 - 14:15	**Introduction by J. Schlöder**	
14:15 - 14:30	Jan Albersmeyer	*A Lifted Newton method and its application in optimization*
14:30 - 14:45	Peter Kühl	*Moving horizon state estimation for robust nonlinear model predictive control*
14:45 - 15:00	Katja Mombaur	*Optimization of biologically inspired walking and running robots*
15:00 - 15:15	Tillmann Lang	*Optimization-based design of a dynamic bipedal running robot*
15:15 - 15:30	Kathrin Hatz	*Parameter estimation in biomechanics*
15:30 - 15:35	**Introduction by E. Gutheil**	
15:35 - 15:50	Wu Peng	*Approaches for modeling and simulation of the dynamics of spray flows*
15:50 - 16:20	Coffee Break	
16:20 - 16:25	**Introduction by F. Noé**	
16:25 - 16:40	Petra Imhof	*Modelling photoactivated processes in a protein*
16:40 - 16:55	Frank Noé	*Metastable states and conformational dynamics in biomolecules*
16:55 - 17:10	Jan-Hendrik Prinz	*Enhanced phase space sampling using metastability*
17:10 - 17:15	**Introduction by J. Warnatz**	
17:15 - 17:30	Oliver Slaby	*Spatiotemporal modeling of metabolic dynamics in human immune cells*
17:30 - 17:35	**Introduction by J. Langowski**	
17:35 - 17:50	Karine Voltz	*Parameterisation of a coarse-grained model force-field for the simulation of the nucleosome*
17:50 - 17:55	**Introduction by K. Roth**	
17:55 - 18:10	Sreejith P. Kuttanikkad	*Numerical simulation of viscous incompressible flow on complex domains using discontinuous Galerkin method*
18:10 - 18:15	**Introduction by P. Schmelcher**	
18:15 - 18:30	Daniel Buchholz	*Parallelized computational quantum transport in nanostructures*
18:30 - ?	**Election of GK speaker and GK jobs distribution**	
19:30	**Dinner**	

Saturday 02.12.2006

9:30 - 9:35	**Introduction by W. Jäger**	
9:35 - 9:50	Frederic Weller	*Modeling and numerical simulation of primary hemostasis*
9:50 - 10:05	Carmen Ellsässer	*Simulation of neuronal processes with applications to the olfactory system*
10:05 - 10:20	Hamid Reza Noori	*Oscillation hypothesis of psychosis*
10:20 - 10:35	Franziska Matthäus	*Continuous time random walk approach for modeling diffusion on large networks*
10:35 - 10:50	Elfriede Friedmann	*Drag reduction mechanism of grooved surfaces*
10:50 - 11:05	Anna Marciniak	*Mechanisms of pattern formation in multicellular systems: Mathematical modelling versus experimental findings*

11:05 - 11:30	Coffee Break

11:30 - 11:35	**Introduction by M. Niezgódka**	
11:35 - 11:50	Maciej Cytowski	*Numerical solutions and applications of the Allen-Cahn equation*
11:50 - 12:05	Zuzanna Szymańska	*Mathematical modelling of the impact of heat shock proteins (HSPs) on tumor invasion*
12:05 - 12:20	Ania Fogtman	*Differential proteomics of Arabidopsis thaliana cell nucleus*
12:20 - 12:25	**Introduction by J. Majewski**	
12:25 - 12:40	Michał Łopuszynski	*Towards multiscale modelling of semiconducting nitrides*

12:40 - 14:10	Lunch Break (Lunch is served at the location)

14:10 - 14:15	**Introduction by W. Wiślicki**	
14:15 - 14:30	Karol Wawrzyniak	*Applications of Minority Games to market modelling*
14:30 - 14:35	**Introduction by H.-D. Meyer**	
14:35 - 14:50	Michael Brill	*Shared Memory Parallelisation of MCTDH*
14:50 - 14:55	**Introduction by R. Rannacher**	
14:55 - 15:10	Helke Karen Hesse	*Multiple Shooting and Mesh Adaptation for PDE Constrained Optimization Problems*
15:10 - 15:25	Sandra May	*Of roots and corner singularities*
15:25 - 15:40	Dominik Meidner	*Adaptive finite element methods for optimal control of nonstationary diffusion-reaction problems*