24TH UMBRELLA SYMPOSIUM
FOR THE DEVELOPMENT OF JOINT COOPERATION IDEAS
"MODELLING AND SIMULATION IN MEDICINE, ENGINEERING AND SCIENCES"

Mon., 18 Jan. 2010 – Wed., 20 Jan. 2010
Forschungszentrum Jülich, Germany
http://www.fz-juelich.de/common/maps/zam/lageplan_gross_zam.pdf

Draft Programme

Mon., 18 Jan. 2010	
	First morning session: Welcome* and *introduction
09:00 – 09:30	***Registration/Coffee***
09:30 – 09:50	Prof. Dr. Achim. Bachem, Chairman of the Board of Directors, Forschungszentrum Jülich
09:50 – 10:10	Prof. Oded Shmueli, Executive Vice President for Research, Technion Haifa
10:10 – 10:30	Prof. Dr.-Ing. Ernst Schmachtenberg, Rector, RWTH Aachen University
10:30 – 10:50	Dr. Ehud Yariv, Technion: "*Electrokinetic flows about ion-exchange surfaces*"
10:50 – 11:10	Prof. Uwe Naumann, RWTH: "*Transformation of numerical algorithms*"
11:10 – 11:40	*Coffee/tea break*
11:40 – 12:00	Prof. Yeshayahou Levy, Technion: "*NO_x reduction in Gas Turbine Engines using Flameless Combustion*"
12:00 – 12:20	Prof. Marek Behr, RWTH: "*Modelling and Simulation in Cardiovascular Engineering*"
12:20 – 14:00	*Lunch break*
	First afternoon session: Mutual presentation of scientific programmes
14:00 – 14:20	Dr. Joan Adler, Technion: "*Visualisation of carbon allotropes and melting simulations*"
14:20 – 14:40	Dr. Norbert Attig, FZJ: "*Supercomputing, User Support, Visualisation Systems*"
14:40 – 15:00	Prof. Torsten Kuhlen, RWTH: "*Immersive Visualisation in Computational Engineering Science Medicine*"
15:00 – 15:20	David Peters, RWTH: "*Anisotropic Heisenberg Antiferromagnets*"
15:20 – 15:40	Prof. Eugene Rabkin, Technion: "*Adhesion and plasticity of metallic nanoparticles*"
15:40 – 16:00	Dr. Michael Varenberg, Technion: "*Smart Surfaces for Adhesion and Friction: Learning from Nature*"
16:00 – 16:30	*Coffee break*
16:30 – 16:50	Wiebke Potjans, FZJ: "*Neuromodulated synaptic plasticity*"
16:50 – 17:10	Prof. Avi Shtub: "*Development and testing of simulation of emergency room*"
17:10 – 17:30	Prof. Amnon Barak: *Funding opportunities and conditions of GIF*
17:30 – 18:00	Ute Stotz: *Funding opportunities and conditions of DFG and DIP*
18:00 – 18:20	Sabrina Legies: *Funding opportunities of BMBF/MOST, BMBF/MOITAL*
19:00 – 21:00	*Dinner*

Tues., 19 Jan. 2010		
	Second morning session: Mutual presentation of scientific programmes cont'd	
09:00 – 09:20	Dr. Josef Givli, Technion: "*Stability of equilibrium configurations in multi-phase biological membranes*"	
09:20 – 09:40	Dr. Ayelet Fishman, Technion: "Evolving toluene monooxygenase for synthesis of chiral compounds and food ingredients"	
09:40 – 10:00	Dr. Birgit Strodel, FZJ: "*Multiscale Modelling: combining all-atom, coarse-grained and continuum models*"	
10:00 – 10:20	Prof. Dov Dori, Technion: "*Object-Process Methodology – A conceptual modelling language and its applications …*"	
10:20 – 10:40	*Coffee break*	
10:40 – 11:00	Prof. Yehuda Leviatan, Technion: "*Numerical Analysis of Novel Photonic Structures by use of Source Model Techniques*"	
11:00 – 11:20	Dr. Urs Aeberhard, FZJ: "*Theory and Simulation of Quantum Photovoltaic Devices*"	
11:20 – 11:40	Prof. Oded Gottlieb, Technion: "*Nonlinear dynamics and stability of smart piezo-actuated structures*"	
11:40 – 12:00	Uri Peskin, Technion: "*Controlling transient phenomena in molecular junctions and networks*"	
12:00 – 14:00	*Lunch break*	
	Second afternoon session: Discussion in individual project groups	
14:00 – 16:00	*Discussion of possible cooperation projects of mutual interest to and identification of funding strategies (in individual project groups)*	*14:00 – 15:00* *Head of Delegation Meeting*
16:00 – 16:30	*Coffee break*	
16:30 – 18:00	*Draft of project outline/Letter of intent/project road map including funding strategy (in individual project groups)*	
19:00 – 21:00	*Dinner*	

Wed., 20 Jan. 2010	
	Third morning session: Presentation and discussion of project ideas
09:00 – 09:20	Numerics/mathematics
09:20 – 09:40	Medicine
09:40 – 10:00	Visualisation
10:00 – 10:20	Biophysics
10:20 – 10:40	*Coffee break*
10:40 – 11:00	Materials Sciences
11:00 – 11:20	Nanoelectronics
11:20 – 11:40	CFD
11:40 – 12:00	Concluding remarks
12:00 – 14:00	*Lunch*
Rest of day	*Visit of CAVE (*http://www.rz.rwth-aachen.de/ca/c/nsi/?lang=en*) and Aachen city tour*