Section Biological Physics Fachverband Biologische Physik (BP)

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Overview of Invited Talks and Sessions

(lecture rooms H43 and H44; Poster B and D)

Invited Talks

BP 1.1	Mon	9:30-10:00	H43	Physical Aspects of Evolutionary Transitions to Multicellularity — •RAYMOND GOLDSTEIN
BP 1.2	Mon	10:00-10:30	H43	Surfing genes: On the fate of neutral mutations in spreading populations — •OSKAR HALLATSCHEK, DAVID NELSON
BP 3.1	Mon	14:00-14:30	H43	On the Timescales of Membrane Fusion — •RUMIANA DIMOVA
BP 5.1	Mon	10:30-11:00	H44	Force induced strengthening of binding domains in specifically adhered vesicles — \bullet ANA-SUNCANA SMITH
BP 9.1	Tue	9:30-10:00	H43	Single molecule recognition in regulatory systems — •ROBERT ROS
BP 9.2	Tue	10:00-10:30	H43	Transcription by RNA Polymerase II — •STEPHAN GRILL, ERIC GALBURT,
				Martin Depken, Carlos Bustamante
BP 10.1	Tue	14:00-14:30	H43	Supercoils and their Removal — •NYNKE DEKKER
BP 12.1	Tue	10:30-11:00	H44	The first micro seconds in the life of a nerve impulse — •FRED WOLF
BP 22.1	Thu	9:30-10:00	H43	DNA-based molecular machines and synthetic biology — •FRIEDRICH SIMMEL
BP 22.7	Thu	11:30-12:00	H43	From biological towards artificial Molecular Machines — •THORSTEN HUGEL
BP 23.1	Thu	14:00-14:30	H43	The Physics of Neuronal Growth — •TIMO BETZ, DANIEL KOCH, JOSEF KÄS
BP 25.1	Thu	14:30-15:00	H44	Mechanical amplification by sensory hair cells from the vertebrate ear — •Pascal Martin
BP 27.1	Fri	10:30-11:00	H43	From target search to travel bugs: scale free motion in biology — •DIRK BROCKMANN

Invited talks of the joint symposium SYBM

See SYBM for the full program of the Symposium.

SYBM 1.1	Thu	9:30-10:00	H1	Using Ice to Mimic Nacre: From Structural Materials to Artificial Bone — •A. P. Tomsia, S. Deville, E. Saiz
SYBM 1.2	Thu	10:00-10:30	H1	On the structure of biogenic CaCO ₃ — •B. POKROY
SYBM 1.3	Thu	10:30-11:00	H1	Bio-Inspired Hybrid Materials from Block Copolymer Assemblies and
				Nanoparticle Co-assemblies — •U. WIESNER
SYBM 1.4	Thu	11:15-11:45	H1	Bio-Inspired Organic-inorganic Hybrid Materials — •U. Steiner
SYBM 1.5	Thu	11:45-12:15	H1	Structural, Nanomechanical, and Nanotribological Characterization of
				Human Hair Using Atomic Force Microscopy and Nanoindentation —
				•Bharat Bhushan

Invited talks of the joint symposium SYNF

See SYNF for the full program of the Symposium.

SYNF 1.1 SYNF 1.2	Wed Wed	14:45–15:15 15:15–15:45	H1 H1	Depolymerization of microtubules by kinesins — •JONATHON HOWARD Hydra Molecular Network Reaches Criticality at the Symmetry-Breaking Axis-Defining Moment — JORDI SORIANO, CYRIL COLOMBO, •ALBRECHT OTT
SYNF 1.3	Wed	15:45-16:15	H1	Morphogen Transport in Epithelia — •Tobias Bollenbach
SYNF 1.4	Wed	16:15–16:45	H1	Flocks, Herds and Schools - Physical Models of Animal Motion — •UDO ERDMANN
SYNF 1.5	Wed	16:45–17:15	H1	Nonlinear transport processes in large-scale ecological networks — •Bernd Blasius

Invited talks of the joint symposium SYPE

See SYPE for the full program of the Symposium.

SYPE 2.1	Thu	14:00-14:30	H37	Coulomb and Flory: Fathers of SONS. Polyelectrolytes in Self Orga-			
				nized Nano Systems — •Martien Cohen Stuart			
SYPE 2.7	Thu	16:00-16:30	H37	Bundling Phenomena in Semiflexible Polyelectrolytes — •Christian			
				Holm, Mehmet Sayar, Berk Hess			
SYPE 3.1	Fri	10:30-11:00	H1	Behaviour of polyelectrolyte solutions under confinement —			
				•Dominique Langevin, César Marquez, Heinig Peter, Dan Qu			
SYPE 3.4	Fri	11:30-12:00	H1	Polymers at Surfaces: Sticking and Gliding — ◆ROLAND NETZ			

Sessions

BP 1.1–1.7	Mon	9:30-12:00	H43	Evolutionary and Population Dynamics
BP $2.1-2.4$	Mon	12:15-13:15	H43	Protein Function
BP 3.1-3.12	Mon	14:00-17:15	H43	Membranes and Interfaces
BP 4.1-4.8	Mon	17:30-19:30	H43	Protein Structure and Folding
BP $5.1-5.8$	Mon	10:30-13:00	H44	Cell Adhesion
BP 6.1-6.6	Mon	14:30-16:00	H44	Biopolymer Conformation and Dynamics
BP 7.1-7.7	Mon	16:15-18:00	H44	Fibers and Bundles
BP 8.1-8.6	Mon	18:00-19:30	H44	Charge Transfer
BP 9.1-9.11	Tue	9:30-13:00	H43	Regulation and Signaling
BP 10.1-10.6	Tue	14:00-15:45	H43	DNA: supercoils, knots and melting
BP 11.1-11.5	Tue	16:00-17:15	H43	Micro- and Nanofluidics
BP 12.1-12.6	Tue	10:30-12:15	H44	Neuroscience
BP 13.1-13.3	Tue	12:30-13:15	H44	Photobiophysics
BP 14.1-14.3	Tue	14:30-15:15	H44	Chemotaxis
BP 15.1-15.8	Tue	15:15-17:15	H44	Biopolymer Solutions and Networks
BP 16.1-16.58	Tue	17:00-19:30	Poster D	Poster Session I
BP 17	Wed	14:30-17:15	H1	Symposium Nonlinear and Anomalous Transport in Complex
				Systems (SYNF)
BP 18.1–18.5	Wed	14:00-15:15	H43	Functionalized Nanoparticles
BP 19.1-19.7	Wed	15:30-17:15	H43	Biosensors and Biofunctionalized Systems
BP 20.1-20.3	Wed	17:30-18:15	H43	Novel Methods
BP 21.1-21.4	Wed	18:15-19:15	H43	High-Throughput Data and their Analysis
BP 22.1-22.12	Thu	9:30-13:15	H43	Molecular Machines
BP 23.1-23.11	Thu	14:00-17:00	H43	Cell Motility and Migration (in vitro and in vivo)
BP 24.1-24.10	Thu	10:00-12:45	H44	Cell Mechanics (in vivo)
BP 25.1-25.9	Thu	14:30-17:00	H44	Oscillatory Systems
BP 26.1-26.49	Thu	17:00-19:30	Poster B	Poster Session II
BP 27.1-27.8	Fri	10:30-12:45	H43	Nonequilibrium Processes and Self-Organisation
BP 28.1-28.6	Fri	11:00-12:30	H44	Biomedical Applications
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Annual General Meeting of the Section Biological Physics

Dienstag 19:30–20:30 H43

- Wahl
- Topics und Symposia 2008