

Sechzehntes Harzseminar
Strukturbildung in Chemie und Biophysik

Goslar-Hahnenklee (OT Bockswiese), 26 – 28 February 2012

Organizers: M. Bär, E. Bodenschatz, M. Hauser, R. Imbihl



Programme

Sunday, 26 February

15:30 – 15:40	Opening
15:40 – 16:15	Nikos Kouvaris (FHI Berlin): Traveling fronts and stationary patterns in bistable reaction-diffusion systems on networks
16:15 – 16:50	Sergey Tichomirov and Pavel Gurevich (FU Berlin): Pattern formation via hysteresis in reaction-diffusion processes
16:50 – 17:10	Coffee break
17:10 – 17:30	Vladimir Zykov (MPI Göttingen) Analytic Solution for Stabilized Wave Segments in the Kessler-Levine Model of an Excitable Medium
17:30 – 17:50	Ronald Imbihl (Uni Hannover): Spectromicroscopy of pulses transporting potassium in the NO + H ₂ reaction over Rh(110)/K
17:50 – 18:10	Martin Hesse (Uni Hannover): Vanadium oxide patterns in methanol oxidation over Rh(111)V-oxide catalysts
18:10 – 18:30	Break
18:30 – 18:50	Holger Flechsig (FHI Berlin) Models of synthetic molecular motors
18:50 – 19:10	Florian Kogler (FHI Berlin) Modeling of interactions between molecular machines
19:30	Dinner

Monday, 27 February

09:00 – 09:35	Sergio Alonso (PTB Berlin) Traveling waves and complex patterns in an extended model of active fluids
09:35 – 09:55	Jürgen Lippoldt (Uni Leipzig) Pattern formation in biomimetic membranes
09:55 – 10:30	Azam Gholami (MPI Göttingen) Membrane Waves driven by protrusive-retractive forces of actin fibers and myosin-driven retrograde flow
10:30 – 10:50	Coffee break
10:50 – 11:10	Christoph Blum (MPI Göttingen) Pattern formation in the actin cortex of motile cells
11:10 – 11:30	Alexander Anielski (Uni Potsdam) A real-time adaptive exposure system for studies of eukaryotic chemotaxis
11:30 – 11:50	Ulrike Strachauer (Uni Magdeburg) Cell motility of slime mould microplasmodia
11:50 – 12:10	Jose Negrete (MPI Göttingen) Phase analysis of single cell actin response to cAMP
12:10 – 12:30	David Schüler (PTB Berlin) A simple model for multiscale pattern formation
12:40 – 15:30	Lunch
15:30 – 16:05	Werner Baumgarten (Uni Magdeburg) Predicting the evolution of the transport network of <i>Physarum polycephalum</i>
16:05 – 16:40	Markus Dahlem (TU Berlin) Migraine: transient patterns and network dynamics
16:40 – 17:00	Coffee break
17:00 – 17:20	Bernard Sonnenschein (HU Berlin) Onset of synchronization in complex networks of noisy oscillators
17:20 – 17:40	Robert Niedl (Uni Potsdam) Clock reactions in a microfluidic device
17:40 – 18:00	Patricia Dähmlow (Uni Magdeburg) Interaction between a scroll wave and a perpendicular gradient
18:00 – 18:20	Markus Bär (PTB Berlin) Reentry in a heterogeneous discrete model of cardiac tissue
18:30	Dinner

Tuesday, 28 February

09:00 – 09:35	Kirsten Harth (Uni Magdeburg) Between soap bubbles and vesicles: Dynamics of smectic bubbles
09:35 – 09:55	David Strehober (TU Berlin) Nonequilibrium dynamics of sheared liquid crystals in homogeneous and inhomogeneous systems
09:55 – 10:15	Sebastian Jäger (TU Berlin) Layering and condensation in field-driven dipolar colloids
10:15 – 10:35	Coffee break
10:35 – 10:55	Christopher Kluge (Uni Magdeburg) Photo-induced formation of pH patterns at the membrane of algae
10:55 – 11:30	Jürgen Vollmer (MPI Göttingen) Lifetimes of transient patterns
11:30 – 11:50	Paul Radke (HU Berlin) Directed transport of Brownian particles with a torque
11:50	Closing
12:30	Lunch

How to reach the conference site:

Hotel Niedersachsen, Wiesenstr. 12, Goslar, OT Hahnenklee-Bockswiese, Tel.: 05325/52860
<http://www.hotelniedersachsen.com>

Arrival by train to Goslar, then take the bus **830 to Bockswiese**:

26 February:	Goslar (ZOB) 12.05 h – Bockswiese 12.25 h Goslar (ZOB) 14.05 h – Bockswiese 14.25 h
28 February:	Bockswiese 13.35 h – Goslar (ZOB) 13.55 h Bockswiese 14.35 h – Goslar (ZOB) 14.55 h

For the complete timetable, see <http://www.rbb-bus.de>