

**Monday, June 3, 2019**

8:00 am	<b>Registration</b>	
8:45 am	<b>Opening and Welcome</b>	
1	<b>Active particles and swimmers</b>	H. Stark, S. Santer
9:00 am	<b>R. Golestanian</b>	<i>Enhanced diffusion and chemotaxis at the nanoscale</i>
9:30 am	<b>S. Santer</b>	<i>Light driven diffusioosmosis: manipulation of small particles at solid surfaces</i>
10:00 am	<b>M. Mazza</b>	<i>Hydrodynamics and heterogeneous distribution of microswimmers</i>
10:30 am	<b>O. Vinogradova</b>	<i>Continuous electroosmotic sorting of particles in grooved microchannels</i>
11:00 am	<i>Coffee Break/Discussion</i>	
11:30 am	<b>I. Kiss</b>	<i>Controlling electrochemical oscillator networks with local feedback techniques</i>
11:50 am	<b>R. Großmann</b>	<i>Chemotaxis strategies for bacterial swimmers with multi-mode motility</i>
12:10 am	<b>P. Arya</b>	<i>Motion of porous particles</i>
<b>12:30 pm</b>	<i>Lunch</i>	
6	<b>Synchronization phenomena</b>	H. Engel, M. Hauser
2:00 pm	<b>A. Pikovsky</b>	<i>Common noise vs coupling in oscillator populations</i>
2:35 pm	<b>E. Macau</b>	<i>Detecting causal relations from real data experiments by using recurrence</i>
3:10 pm	<b>J. Totz</b>	<i>Synchronization transitions in a large network of chemical oscillators</i>
3:45 pm	<b>V. Vanag</b>	<i>“Cognitive” modes in small networks of almost identical chemical oscillators with pulsatile inhibitory coupling”</i>
<b>4 pm</b>	<i>Coffee Break/Discussion</i>	
4:30 pm Plenary talk	<b>E. Bodenschatz</b>	<i>Chemotaxis, cell migration and pattern formation of Dictyostelium discoideum</i>

**Tuesday, June 4, 2019**

5	<b>Active and self-organizing materials</b>	O. Steinbock, F. Sagues
9:00 am	<b>A. Bausch</b>	<i>Pattern formation in active biomolecular and cellular systems</i>
9:30 am	<b>A.F. de las Nieves</b>	<i>Topological active matter</i>
10:00 am	<b>P. Knoll</b>	<i>Life-like Microscale Structures From Nonlinear Reaction-diffusion Processes</i>
10:15 am	<b>P. Magaretti</b>	<i>Dynamics of active polymers</i>
10:30 am	<b>M. A. Budroni</b>	<i>Pulsatory behaviours in simple <math>A+B \rightarrow C</math> reactions: a chemohydrodynamic pathway toward self-organization.</i>
10:45 am	<b>J. Nambisan</b>	<i>Orientation of defects in 2D active nematics</i>
<b>11:00 am</b>	<b><i>Coffee Break/Discussion</i></b>	
2	<b>Cell motility and collective dynamics</b>	C. Beta, M. Bär
11:30 am	<b>G. Ariel</b>	<i>A phase diagram for bacterial swarming</i>
12:00 am	<b>S. Alonso</b>	<i>Interplay among bistability, excitability and fluctuations determines locomotion strategy of crawling cells</i>
<b><i>Group picture at the terrace</i></b>		
<b>12:30 pm</b>	<b><i>Lunch</i></b>	
4	<b>Control of self-organization</b>	S. Klapp, E. Schöll
2:00 pm	<b>S. Gurevich</b>	<i>Spatio-temporal control of self-organized patterns in dynamic self-assembly systems</i>
2:40 pm	<b>R. Andrzejak</b>	<i>Control of chimera states with a pacemaker</i>
3:20 pm	<b>R. Berner</b>	<i>Multi-layer structures in slowly adapting networks of coupled oscillators</i>
3:40 pm	<b>H. Reinken</b>	<i>Self-organization of microswimmers in arrays of obstacles</i>
<b>4:00 pm</b>	<b><i>Coffee Break/Discussion</i></b>	
4:30 pm	<b>Poster Session</b> with discussions, snacks and finger food	

## Wednesday, June 5, 2019

7	<b>Nanoscale patterns and molecular machines</b>		A. Mikhailov, R. Kapral
9:00 am	<b>P. Gaspard</b>	<i>The nonequilibrium statistical mechanics of self-phoretic active particles</i>	
9:40 am	<b>J. Noel</b>	<i>Mesoscopic modeling of active and passive membrane deformation created by dynamin oligomers</i>	
10:00 am	<b>I. Guido</b>	<i>3D wave instabilities of confined active networks</i>	
10:20 am	<b>M. Sokolowski</b>	<i>Light driven self-sustained motion of spherical polymer brushes</i>	
10:40 pm	<b>M. Tarama</b>	<i>Mechanochemical modelling of crawling cells</i>	
11:00 pm	<i>Coffee Break/Discussion</i>		
2	<b>Cell motility and collective dynamics</b>		C. Beta, M. Bär
11:30 am	<b>S. Heidenreich</b>	<i>Emergence and control of patterns in active fluids</i>	
12:00 am	<b>L. Schimansky-Geier</b>	<i>Aligning active searchers wheel around their common home position</i>	
12:30 pm	<i>Lunch</i>		
3	<b>Fluctuations far from equilibrium</b>		I. Sokolov, R. Metzler
2:00 pm	<b>R. Metzler</b>	<i>Brownian motion and beyond</i>	
2:40 pm	<b>K. Kroy</b>	<i>How thermodynamic notions fare and fail far from equilibrium</i>	
3:20 pm	<b>A. Chechkin</b>	<i>Brownian yet non-Gaussian diffusion in heterogeneous environment</i>	
4:00 pm	<i>End day 2</i>		
5:00 pm - 8:00 pm	<i><b>Boat trip and dinner</b> (only for registered participants)</i>		

For all who booked the conference dinner please notice that the dinner will take place on the MS Stadt Potsdam. The meeting point for the scenic boat trip is 5 pm (sharp) at the landing stage “Potsdam Seminaris Seehotel” at the lakeside of the venue. The tour will finish by going back to the hotel at 8 pm. Participants who did not book the boat trip will have dinner at the hotel.

Thursday, June 6, 2019

9	<b>Applications to nonlinear chemical and physical systems</b>		K. Krischer, H. H. Rotermund
9:00 am	<b>S. Morris</b>	<i>Riddles of a rippled icicle</i>	
9:40 am	<b>R. Imbihl</b>	<i>Dynamics of V-oxide catalysts from UHV to 0,1mbar</i>	
10:20 am	<b>A. Tosolini</b>	<i>Bichaoticity induced by inherent birhythmicity during the oscillatory electrodisolution of silicon</i>	
10:40 am	<b>M. Stich</b>	<i>Oscillations, travelling fronts and patterns in a supramolecular system</i>	
<b>11:00 am</b>	<b><i>Coffee Break/Discussion</i></b>		
11:30 am	<b>R. Klages</b>	<i>Asymmetric anomalous diffusion in cell chemotaxis: experiments and stochastic modeling</i>	
11:50 am	<b>F. Rühle</b>	<i>Dynamics of bottom-heavy squirmer microswimmers</i>	
12:10 pm	<b>A. Gholami</b>	<i>Spatial heterogeneities shape collective behavior of signaling amoeboid cells</i>	
<b>12:30 pm</b>	<b><i>Lunch</i></b>		
8	<b>Biological self-organization</b>		M. Falcke, B. Lindner
2:00 pm	<b>K. John</b>	<i>Spreading strategies and morphology of bacterial colonies: interplay between passive physico-chemical effects and bioactive growth</i>	
2:30 pm	<b>S. Reber</b>	<i>Mitotic spindle scaling: how complexity arises from molecular interaction</i>	
3:00 pm	<b>P. Gross</b>	<i>Guiding self-organized pattern formation in cell polarity establishment</i>	
3:30 pm	<b>K. Alim</b>	<i>Self-organization by fluid flows</i>	
<b>4:00 pm</b>	<b><i>Coffee Break/Discussion</i></b>		
4:30 pm plenary talk	<b>Y. Kevrekidis</b>	<i>No equations, no variables, no parameters, no space, no time: data and the modeling of complex systems</i>	
5:30 pm	<b>Closing remarks</b>		