

Workshop on “Challenges in Biological and Soft Matter Physics” at the Arnold-Sommerfeld-Center for Theoretical Physics

The talks will be on the 3rd floor of the Theoretical Physics Building in Theresienstrasse 37. There will be signs at the entrance guiding you to the lecture room (Hörsaal) which is on the 3rd floor. The room number reads A 348.

August 9

9:00-9:25	Claudia Veigel	Regulation of unconventional myosin motors
9:25-9:50	Rony Granek	Role of motor-motor coupling in the stochastic motion of multi-motor driven cargos
9:50-10:15	Leah Gheber	Directionality of kinesin motors: old dogma new insights
10:15-10:45	Coffee Break	
10:45-11:10	Zeynep Ökten	Getting on the right track: How an adaptor protein decides over the fate of its motor
11:10-11:35	David Lukatsky	Protein-DNA recognition driven by biased thermal fluctuations
11:35-12:00	Hanna Rapaport	Structural and functional aspects of designed amphiphilic β -sheet peptides

Lunch Break & Discussions 12:00 - 14:00

14:00-14:25	Fritz Simmel	RNA-based gene circuits in vitro and in vivo
14:25-14:50	Hendrik Dietz	DNA cages, capsids, and maybe motors
14:50-15:15	Rachel Yerushalmi-Rozen	Self-assembly and hybrid materials
15:15-15:40	Job Boekhoven	Molecular assemblies out of equilibrium
15:40-16:30	Coffee Break	
16:30-16:55	Petra Schwille	Life from the bottom up
16:55-17:20	Mario Feingold	Chiral dynamics of protein vortices on supported membranes
17:20-17:45	Oded Farago	Coarse-grained modelling and simulations of membranes and biological complexes
17:45-18:10	Ralf Jungmann	DNA-based probes for bioimaging

August 10

9:00-9:25	Joachim Rädler	Phenotypic characterization of cell migration on micropattern
9:25-9:50	Oleg Krichevsky	A case for simple physics in communication between immune cells
9:50-10:15	Hanna Engelke	Manipulating cell-extracellular matrix interactions
10:15-10:45	Coffee Break	
10:45-11:10	Chase Broedersz	Activity and the arrow of time in biological systems
11:10-11:35	Yoav Tsori	Electro-prewetting transitions
11:35-12:00	Erwin Frey	Self-organisation in biological systems

Lunch Break & Discussions 12:00 - 14:00

14:00-14:25	Oren Regev	Performance of Polymer Nanocomposites: Dimensionality Matters
14:25-14:50	Oliver Lieleg	Biopolymers and Biointerfaces
14:50-15:15		
15:15-15:40	Ronit Bitton	Structure-properties relationships of Multicomponent Polysaccharide-Peptide Hydrogels
15:40-16:30	Coffee Break	
16:30-16:55	Felix Müller-Planitz	Structure and function of ATP-dependent chromatin remodeling machines
16:55-17:20	Ulrich Gerland	Physics of nucleosome positioning
17:20-17:45	Christof Mast	Thermal non-equilibria to drive pre-life
17:45-18:10	Katharina Henneberg	Shape remodeling vesicles by localized actin polymerization

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