Wednesday, September 15	Program	
	Arrival	
18:30	***Dinner***	
19:30 – 20:00	*Welcome, concept and discussion*	Peer Fischer Max Planck Institute for Intelligent Systems, Germany

Thursday, September 16	Program	
08:00 – 08:45	***Breakfast***	
08:45 – 12:10	***Session – Enzymes and Synthetic Nanomotors***	
08:45 – 09:05	*Monitoring the two rotary motors of the enzyme FoF1-ATP synthase using single-molecule FRET*	Michael Börsch Universitätsklinikum, Friedrich Schiller University Jena, Germany
09:05 – 09:35	*Powerstroke mechanism of F1-ATPase motor revealed by structural and single-molecule studies.*	Hiroyuki Noji The University of Tokyo, Japan
09:35 – 10:05	*Different flavours of molecular motors*	Henry Dube Friedrich Alexander University Erlangen-Nuremberg, Germany
10:05 – 10:20	***Coffee Break***	
10:20 – 10:50	*The unusual reactivity inside the supra-molecular Resorcinarene Capsule Catalyst*	Konrad Tiefenbacher University of Basel, Switzerland
10:50 – 11:20	*Enzymes 2.0 – beyond canonical co-factors*	Sven Panke ETH Zurich, Switzerland
11:20 – 11:40	*What is the smallest swimmer?*	Jan-Philipp Günther Max Planck Institute for Intelligent Systems, Germany
11:40 – 12:10	*Open Discussion*	
12:30	***Lunch***	
14:00 – 17:20	***Session – Cells, Nanoparticles, and Transfection***	
14:00 – 14:30	*Nano-stars: Star-shaped cationic polymers for non-viral gene delivery*	Valérie Jérôme University of Bayreuth, Germany
14:30 – 15:00	*Retina organoids as a potential test system for transfection*	Friedhelm Serwane Ludwig-Maximilians University, Munich, Germany
15:00 – 15:30	*Development of mRNA therapeutics for lung disease*	Christian Plank ETHRIS, Planegg, Germany
15:30 – 15:50	***Coffee Break***	
15:50 – 16:20	*Nanoparticles are so small they can cross cell membranes. Discuss*	Raphaël Lévy University Paris Sorbonne North, France
16:20 – 16:50	*Penetrating biological barriers with nanopropellers*	Peer Fischer Max Planck Institute for Intelligent Systems, Germany
16:50 – 17:20	*Open Discussion*	
18:30	***Bavarian Dinner***	
20:00 – 20:30	*Open Discussion*	

Friday, September 17	Program	
08:00 – 09:00	***Breakfast***	
09:45 – 12:25	***Session – Functional Nanomaterials: Synthesis & Applications***	
09:45 – 10:15	*Functional nanomaterials by physical vapor deposition (PVD)*	Hyunah Kwon Max Planck Institute for Intelligent Systems, Germany
10:15 – 10:45	*Heterogeneous photocatalysis: From fundamentals to applications*	Adriana K. Zaleska-Medynska University of Gdansk, Poland
10:45 – 11:15	***Coffee Break***	
11:15 – 11:45	*Metal oxide gas sensors with nanoscale catalytic overlayer: Toward tuning gas selectivity and response*	Jong Heun Lee Korea University, Seoul, Korea
11:45 – 12:10	*Transition-metal hydrides on metal oxide surfaces: Understanding interactions between metal hydrides andsSupports*	Deven Estes University of Stuttgart, Germany
12:10 – 12:25	*Open Discussion*	
12:30 – 14:00	***Lunch***	
14:00 – 17:45	***Session – Ultrasound Effects for Biology and Medicine***	
14:00 – 14:30	*Holograms and assembly*	Athanasios Athanassiadis, Kai Melde, Zhichao Ma Max Planck Institute for Intelligent Systems, Germany
14:30 – 15:00	*Acoustic holograms for low-cost biomedical ultrasound applications*	Noé Jiménez Universitat Politècnica de València, Spain
15:00 – 15:15	***Coffee Break***	
15:15 – 15:45	*Microbubble arrays for acoustic manipulation*	Zhichao Ma, Rahul Goyal Max Planck Institute for Intelligent Systems, Germany
15:45 – 16:15	*Ultrasound-controlled swarmbots*	Daniel Ahmed ETH Zurich, Switzerland
16:15 – 16:45	*Poking and probing soft matter with ultrasound-driven microbubbles*	Valeria Garbin Delft University of Technology, The Netherlands
16:45 – 17:15	*Cavitation in Soft Matter*	Claus-Dieter Ohl Otto von Guericke University, Magdeburg, Germany
17:15 – 17:45	*Open Discussion*	
17:45 – 18:30	*Castle Tour*	Jochen Essl Schloss Ringberg
18:30	***Dinner***	
20:00 – 20:30	*Open Discussion*	

Saturday, September 18	Program	
08:00 – 09:00	***Breakfast***	
09:00 – 11:30	***Session – Learning in Physical Systems***	
09:00 – 09:30	*Accelerating combinatorial optimization and machine learning with analog opto-electronic Ising machines*	Fabian Böhm Vrije Universiteit Brussel, Belgium
09:30 – 10:00	*Ultrafast photonic convolution processing.*	Wolfram Pernice University of Münster, Germany
10:00 – 10:10	***Coffee Break***	
10:10 – 10:40	*Photonic computing by spatial light modulation*	Claudio Conti University Sapienza, Rome, Italy
10:40 – 11:00	*Transformation of a saturable absorber activation function for use in optical neural networks*	Alexander Song Max Planck Institute for Intelligent Systems, Germany
11:00 – 11:30	*Open Discussion*	
11:30	***Departure***	