

Workshop

# Soft matter at interfaces 2017

19–22 February 2017

Ringberg Castle



---

Sunday, 19 February 2017

19:00      Arrival and pre-discussions

Monday, 20 February 2017

8:00 Breakfast

9:15– 9:20 **S. Dietrich**, MPI Intelligent Systems, Stuttgart, Germany  
*Opening remarks*

Session: Active matter

9:20–10:00 **C. Bechinger**, University of Stuttgart, Germany  
*Tactic Response of Synthetic Microswimmers*

10:00–10:40 **S. Klapp**, Technical University Berlin, Germany  
*Nonequilibrium collective behavior of dipolar patchy particles: Networks, layers and lanes*

10:40–11:00 Coffee break

11:00–11:40 **E. Frey**, LMU Munich, Germany  
*On the role of mass conservation in active matter systems*

11:40–12:20 **J. Simmchen**, Technical University Dresden, Germany  
*Influencing catalytic microswimmers through 3D pattern and ionic environments*

12:30 Lunch

Session: Ions at interfaces

14:00–14:40 **F. Mugele**, University of Twente, Enschede, the Netherlands  
*Specific ion adsorption triggers wettability alteration in oil-water-mineral systems*

14:40–15:20 **D. Gillespie**, Rush University, Chicago, USA  
*Ions at a charged wall: Density functional theories studies*

15:20–17:00 Coffee break and **poster presentations**

Session: Interface fluctuations

17:00–17:40 **Y. Fujitani**, Keio University, Japan  
*Fluctuation amplitude of an externally trapped rigid sphere in a near-critical binary fluid mixture within the regime of the Gaussian model*

17:40–18:20 **M. Gross**, MPI Intelligent Systems, Stuttgart, Germany  
*Critical Casimir forces in the canonical ensemble*

18:30 Dinner

Tuesday, 21 February 2017

8:00 Breakfast

Session: Microfluidics and soft matter mechanics
--

9:20–10:00 **J. Wettlaufer**, Yale University, New Haven, USA  
*Liquids stiffen solids — using differential geometry to tailor materials*

10:00–10:40 **D. Truzzolillo**, University of Montpellier, France  
*Non-equilibrium interfacial tension in simple and complex fluids*

10:40–11:00 Coffee break

11:00–11:40 **P. Garstecki**, Polish Academy of Sciences, Warsaw, Poland  
*Droplet microfluidics*

11:40–12:20 **A.-S. Smith**, FAU Erlangen-Nürnberg, Germany  
*The effect of shape on the self propulsion efficiency*

12:30 Lunch

Free afternoon

18:30 Dinner (Bavarian evening)

20:30 Musical finale

Wednesday, 22 February 2017

8:00 Breakfast

Session: Colloids at interfaces
---------------------------------

9:15– 9:55 **J.K.G. Dhont**, Forschungszentrum Jülich, Germany  
*Non-Uniform Flow of Glasses: The “shear-gradient concentration coupling instability”*

9:55–10:35 **N. Denkov**, Sofia University, Bulgaria  
*The wondering transformations of cooled oil drops: shape-shifting, morphogenesis, self-emulsification and beyond*

10:35–10:55 Coffee break

10:55–11:35 **M. Fuchs**, University of Konstanz, Germany  
*Stresses and strains in dense colloidal dispersions*

11:35–12:15 **D. Aarts**, University of Oxford, UK  
*Directed self-assembly of Janus rods*

12:15–12:20 **S. Dietrich**, MPI Intelligent Systems, Stuttgart, Germany  
*Closing remarks*

12:30 Lunch

14:00 Wrap-up discussions and departure