

# AAFMT conference - program

## Monday, March 6, 2023

- 10:30        OPENING COFFEE & REGISTRATION  
*Chair: Regina Hoffmann & Thomas Schimmel*
- 10:50        WELCOME  
*Thomas Schimmel, Karlsruhe & Regina Hoffmann, Potsdam*
- 11:00        Machine Learning in Scanning Probe Microscopy  
*Adam S. Foster, Aalto University*
- 11:40        Chemical bond imaging using torsional and flexural higher eigenmodes of qPlus sensors  
*Daniel Ebeling, Justus Liebig University, Giessen*
- 12:00        Charging single metal nanoparticles on thin alumina films by the AFM tip  
*Clemens Barth, CNRS, Marseille*
- 12:20        LUNCH  
*Chair: Svetlana Santer*
- 13:30        Structure-function relationships of mechanoresponsive proteins  
*Kerstin G. Blank, Johannes Kepler University, Linz*
- 14:10        Mechanical properties of multi photon lithography printed polymer structures by AFM spectroscopy  
*Dorothee Silbernagel, BAM, Berlin*
- 14:30        Unfolding fingerprint of interfacial velvet work slime proteins at different pH and buffer conditions using AFM force clamping spectroscopy  
*Yendry Corrales Urena, University of Bremen*
- 14:50        Probing transparency of graphene using dynamic AFM  
*Sanket Jugade, Centre for Nanoscience and Engineering, Bengaluru*
- 15:10        POSTER SESSION with COFFEE, SNACKS & REFRESHMENTS  
*Chair: Daniel Ebeling*
- 17:00        Analysis and interpretation of force volume data acquired with a tuning fork AFM at cryogenic temperatures by using intermodulation products  
*Marco Zutter, University of Basel*

- 17:20 The trouble of reliable piezoresponse force microscopy on electronic and ionic conductors  
*Ilka M. Hermes, Leibniz Institute of Polymer Research, Dresden*
- 17:40 Optimizing information transfer in AFM measurement  
*Pieter J. A. van Schendel, Nanosurf, Liestal*
- 18:00 POTSDAM GUIDED TOUR
- 20:00 CONFERENCE DINNER at El Puerto, Potsdam

## Tuesday, March 7, 2023

*Chair: Katharina Franke*

- 9:30 KPFM on low conducting 2D materials  
*Elisa Palacios-Lidon, University of Murcia*
- 10:10 Force experiments on 2d-materials  
*Ernst Meyer, University of Basel*
- 10:30 Dissipation arising from molecular fluctuations  
*Hans Josef Hug, EMPA, Dübendorf*
- 10:50 COFFEE BREAK
- Chair: Remy Pawlak*
- 11:20 Physisorbed and chemisorbed organic molecules on monolayers of MoS<sub>2</sub> on Au(111)  
*Katharina Franke, FU Berlin*
- 12:00 Magnetic phase transition in monolayer MoS<sub>2</sub> detected with AFM  
*Marcin Kisiel, University of Basel*
- 12:30 LUNCH
- Chair: Elisa Palacios-Lidon*
- 13:20 Tracking single polarons by STM/AFM  
*Martin Setvin, Charles University, Prague*
- 14:00 On-surface synthesis of nanographene with Kagome structure characterized by low-temperature atomic force microscopy  
*Remy Pawlak, University of Basel*
- 14:20 Symmetry analysis and microscopic geometry of the (2×1) reconstructed calcite(104) surface  
*Philipp Rahe, University of Osnabrück*

- 14:40 The wavy world of Fourier surfaces  
*Nolan Lassaline, TU Denmark*
- 15:20 Signal characterisation and precision calibration for an interferometer for NC-AFM applications  
*Knarik Khachatryan, University of Osnabrück*
- 15:40 BEST POSTER AWARD, BEST IMAGE PRIZE & CLOSING REMARKS
- 16:00 End of conference