

Scientific program

Monday 08.10.2018

Chair: Jörg Enderlein

9:00 - 9:10 **Jörg Enderlein:** Welcome message

9:10 - 9:40 **Christian Franke**, Max-Planck-Institute of Molecular Cell Biology and Genetics, Dresden, Germany
„Elucidating the Endosomal Machinery with Correlative Multi-Color Single-Molecule Localization-Microscopy & Electron Tomography“

9:40 - 10:00 **Sebastian Isbaner**, Georg-August-University Göttingen, Germany
“Single Molecule Metal-Induced Energy Transfer for Axial Localization”

10:00 - 10:20 **Felix Wäldchen**, Julius Maximilians University Wuerzburg, Germany
„Lattice Light-Sheet Microscopy for Whole-Cell Single Molecule Imaging“

10:20 - 11:00  Coffee break

Chair: Ingo Gregor

11:00 - 11:20 **Julian Lehmann**, Julius-Maximilians-University Würzburg, Germany
“PALM stoichiometry of plant anion channels”

11:20 - 11:40 **Steffen Mühle**, Georg-August Universität Göttingen, Germany
“Brownian Dynamics Simulation of (Semi-)Flexible Polymer Chains”

11:40 - 12:00 **Amna Abdalla Mohammed Khalid**, Georg-August-University Göttingen, Germany
“MT-MKLp2 cross-linked network studies”

12:00 – 14:00 LUNCH

14:00 - ... Discussion session: combination of STORM and MIET techniques

20:00 - ... **POSTER SESSION and GET TOGETHER**

Tuesday 09.10.2018

Chair: Ulrich Parlitz

9:00 - 9:20 **Andreas Kurz**, University of Würzburg, Würzburg, Germany
"Correlative live- and fixed cell super resolution imaging"

9:20 - 9:40 **Fabian Zettler**, Julius-Maximilians-University Würzburg, Würzburg, Germany
"Next generation Expansion Microscopy: combining physical specimen expansion with super-resolution microscopy"

9:40 - 10:00 **Oleksii Nevskiy**, Georg-August-University Göttingen, Germany
"Fluorescent Diarylethenes as Photoswitches for Super-Resolution Microscopy in Material Science"

10:00 - 10:40

A logo for a coffee break featuring a stylized coffee cup with a lid and a small coffee bean next to the text "Coffee break" written in a cursive font.

Chair: Andreas Neef

10:40 – 11:00 **Sina Wäldchen**, University of Würzburg, Germany
„Activity-induced ionotropic glutamate receptor dynamics at super-resolution in vivo“

11:00 – 11:20 **Julia Heiby**, Julius-Maximilians-University Würzburg, Germany
"Methionine induces malleability in the N-terminal domain of a spider silk protein"

11:20 – 11:40 **Eugenia Butkevich**, Georg-August-University Göttingen, Germany
„Polymerization of drebrin drives actin network remodeling and sarcomere reorganization“

11:40 - 12:00 **Subhabrata Ghosh**, Georg-August-University Göttingen, Germany
"Heat-treatment Controlled Blue Light Emission in Ternary Glass-ceramic Waveguides"

12:00 – 14:00 LUNCH

14:00 - ... Discussion session: PAINT, STORM and Expansion Microscopy

Wednesday 10.10.2018

Chair: Ireneusz Grulkowski

9:00 - 9:30 **Felix Koberling**, PicoQuant, Berlin, Germany
"Mapping Molecules Quantitatively in Confocal Fluorescence Microscopy"

9:30 - 9:50 **Akshita Sharma**, Georg-August-University Göttingen, Germany
"Leaflet-dependent diffusion in lipid bilayers using Metal-Induced Energy Transfer Fluorescence Lifetime Correlation Spectroscopy (MIET-FLCS)"

9:50 - 10:10 **Nazar Oleksiievets**, Georg-August-University Göttingen, Germany
"Probing Lipid Diffusion in Curved Membranes with Fluorescence Microscopy"

10:10 - 10:50



Chair: Felix Koberling

10:50 - 11:10 **Jan Christoph Thiele**, Georg-August-University Göttingen, Germany
"Polymer brushes in motion – measuring flow with nanometre resolution"

11:10 - 11:30 **Hongje Jang**, Georg-August-University Göttingen, Germany
"3-dimensional chemotaxis measurement of Dictyostellium Discoideum using multiplane deconvolution imaging setup"

11:30 - 11:50 **Franziska Neubert**, University of Wuerzburg, Germany
„Bioorthogonal click labeling of the NMDA receptor subunit NR1“

12:00 – 14:00 LUNCH

14:00 - ... Discussion session: Super-Resolution Microscopy and Neurobiology: from Cells to Networks

20:00 - ... **POSTER SESSION and GET TOGETHER**

Thursday 11.10.2018

Chair: Dieter Klopfenstein

9:00 – 9:30 **Jörg Enderlein**, Georg-August-University Göttingen, Germany
“Image Scanning Microscopy”

9:30 - 10:00 **Ulrich Parlitz**, Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany
“Applications of data analysis and machine learning in life sciences”

10:00 – 10:30 **Andreas Neef**, Max Planck Institute for Dynamics and Self-Organization Göttingen, Germany

10:30 - 11:10



11:10 - 11:30 **Iryna Kishko**, J. Heyrovsky Institute of Physical Chemistry of the ASCR, Prague, Czech Republic
“Polarity and mobility of the enzyme active cavity as potential factors affecting the enzymatic activity – time dependent fluorescence shift study”

11:30 - 11:50 **Tao Chen**, Georg-August-University Göttingen, Germany
“Single Molecule Study Reveals the Kinetics and Dynamics of Single Nanoparticle”

12:00 - 14:00 LUNCH

18:00 - ...



Be-Optical Project PIs meeting



9:00 – 9:15 **Soheil Mojiri**, Georg August University Göttingen, Germany
„Multi-plane Phase Contrast (MPC) imaging“

9:15 – 9:30 **Shun Qin**, Georg-August-University Göttingen, Germany
“The Image Reconstruction of Spinning Disk Confocal-Image Scanning Microscopy”

9:30 – 9:45 **Tommaso Alterini**, Universitat Politècnica de Catalunya, Terrassa, Spain
“One-shot hyperspectral fundus camera with visible and infrared image sensors”

9:45 – 10:00 **Donatus Halpaap**, Universitat Politècnica de Catalunya, Barcelona, Spain
„Studying interference patterns of laser diode light under different pump current and feedback conditions for speckle reduction in double pass imaging“

10:00 – 10:15 **Raúl Quiñonez**, Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany
“Defibrillating the heart with light”

10:15 – 10:30 **Antu Gortari**, Centre national de la recherche scientifique (CNRS), Paris, France
“Metasurface-based total internal reflection bioimaging”

10:30 – 11:00 

11:00 – 11:15 **Vineesh Kappadan**, Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany
“Motion artifact compensation in optical mapping studies with motion by combining marker-free tracking and ratiometric imaging”

11:15 – 11:30 **Adrià Escobet Montalbà**, SUPA, School of Physics and Astronomy, University of St Andrews, UK
“TRAFIX: Wide-Field Multiphoton Imaging Through Scattering Media”

11:30 – 11:45 **Alfonso Jiménez Villar**, Nicolaus Copernicus University, Toruń, Poland
“Active Optical Components in Scanning Laser Ophthalmoscope to Visualize Ocular Structures”

11:45 – 12:00 **Ana Rodríguez Aramendía**, Institut de Microcirurgia Ocular (IMO), Barcelona, Spain
“Anterior and posterior segment SS-OCT system integrated into an instrument for autonomous evaluation of the visual function”

12:00 – 12:15 **Mariano Gonzalez Pisfil**, PicoQuant GmbH, Berlin, Humboldt-Universität zu Berlin, Berlin, Germany
“Multy-Species Diffusion Studies in Membranes Utilizing Scanning FCS and Super-Resolution Microscopy”

12:15 – 12:30 **Pablo Amil Marletti**, Universitat Politècnica de Catalunya, Barcelona, Spain
“Novel network-based methods for retinal fundus image analysis and classification”

14:00 – 16:00 **Jose Javier Ramasco**, Instituto de Fisica Interdisciplinar y Sistemas Complejos, IFISC Mallorca, Spain
“Scientific presentation and visualization”