Frontiers in Light Microscopy – Technology Driving Discovery

DFG final Symposium of Major Instrumentation Initiative
"Innovative, Experimental Optical Microscopes for Research"
March 11th – 12th 2026 at Osnabrück University

Venue: Center for Cellular Nanoanalytics (CellNanOs), Barbarastr. 11, D-49076 Osnabrück, Conference room 38/201

Wednesday March 11th

14:30-14:40: Michael Royeck (DFG)
Welcome and Opening Remarks

Session I: New technologies for material science
Chair: Mirco Imlau

14:40-15:00: Andrea Luke (University of Kassel)
Multi-Signal Far-Field Microscope

15:00-15:20: Gerhard Schneider (Aalen University)
Kerr Microscopy with Machine Learning Domain Detection for In-Situ Magnetic Materials analysis

15:20-15:50: Coffee break

Session II: Nanoscopy
Chair: Arne Möller

15:50-16:10: Christian Eggeling (Friedrich Schiller University Jena)
MINFLUX-Jena – Advancing Single-Molecule Detection in Cell-Biological Research

16:10-16:30: Stefan Jakobs (University of Göttingen)
Göttingen MINFLUX

16:30-16:50: Markus Schwaninger (University of Lübeck)
Intravital Nanoscopy for Investigating the Blood-Brain Barrier

16:50-17:10: Peter Lipp (Saarland University)
Real-Time Nanoscopy

17:10-17:30: Coffee break

17:30-18:00: Meet-the-Experts Session

- Room 1 (38/201): MinFLUX
- Room 2 (38/202): Live cell nanoscopy by STED and iSIM

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Thursday, March 12th

Session III: Multimodal Imaging and photomanipulation
Chair: Rainer Kurre

9:00-9:20: Hella Hartmann (Dresden University of Technology (TUD))
New Generation Laser Scanning Confocal Microscope for Multimodal Deep Tissue and Functional Imaging

9:20-9:40: Andrew Plested (Humboldt University Berlin)
A Modular Dual 2-Photon Microscope for Multimodal Optogenetics, Synapse Biophysics and Beyond

9:40-10:00: Steffen Dietzel (Ludwig-Maximilians University Munich)
Fast and Integrated Fluorescence Lifetime Microscopy

10:00-10:30: Coffee break

Session IV: Light-sheet Microscopy
Chair: Jacob Piehler

10:30-10:50: Rainer Kurre (Osnabrück University)
Adaptive Optics Lattice Light-Sheet Microscopy - Volumetric Imaging Across Spatiotemporal Scales

10:50-11:10: Jan Schmoranzer (Charité Berlin together with FU/HU Berlin)
Lattice Light Sheet Microscope (LLSM)

11:10-11:30: Roland Thünauer (University of Hamburg)
Analysis of Highly Dynamic Sub-Cellular Mechanisms by Lattice Light Sheet Microscopy

11:30-11:50: Matthias Gunzer (University of Duisburg-Essen)
A Deconvolution Light-Sheet Microscope for Mesoscopic Tissue Imaging

11:50-12:00: Coffee break

12:00-12:30: Meet-the-Experts Session

- Room 1 (38/201): Light-sheet microscopy
- Room 2 (38/202): Multiphoton and multimodal imaging

End of the Symposium