



Imaging Techniques in Cell Biology

From single molecules to subcellular compartments

September 29, 2017, 9 a.m. – 3 p.m.

LIN, Brennekestr. 6, 39118 Magdeburg / Ebbinghaus lecture hall

Organized by:

Martin Heine, Ines Kaiser, Werner Zuschratter

09:00 – 09:05 a.m.

Welcome

Ines Kaiser, CNI, Leibniz Institute

09:05 – 09:40 a.m.

Illuminating viral lifecycles with sheets of light

Jens Bosse, University of Hamburg, Heinrich Pette Institute, Subunit Quantitative Virology

09:40 – 10:15 a.m.

New roles of DNA: higher resolution and quantification of nanoscopy

Philip Tinnefeld, TU Braunschweig , BRICS, Institute for Physical and Theoretical Chemistry

10:15 – 10:50 a.m.

Applying advanced imaging to quantify the outcome of infection defense and autoimmunity on three functional scales

Matthias Gunzer, University of Essen, Institute for Experimental Immunology and Imaging

10:50 – 11:15 a.m.

Coffee break

11:15 – 11:50 a.m.

Long-range ensemble diffusion FRAP measurements: using protein mobility for mapping protein-interaction sites

Thorsten Lang, University of Bonn, Life & Medical Sciences (LIMES) Institute, Membrane Biochemistry

11:50 – 12:25 p.m.

Lateral diffusion of a plasma membrane ion transporter, Na^+/K^+ -ATPase, by FCS, FRAP or FRAS

Thomas Friedrich, Technical University of Berlin, Institute of Chemistry, Section Physical Chemistry/Bioenergetics

12:25 – 1:20 p.m.

Lunch break

1:20 – 1:55 p.m.

Wide-field time-correlated single photon counting FLIM

Klaus Suhling, Kings College London, Department of Physics

1:55 – 2:30 p.m.

Fast 3D imaging of whole mouse brains and human tumors by breaking the diffraction limit

Hans-Ulrich Dodt, TU Vienna, Chair of Bioelectronics

Discussion and concluding remarks

