

Wednesday, August 28th

15:00 – 17:15 **Arrival & registration**
(posters can be placed upon arrival)

Get together

17:15 **Introductory remarks**
M. Heilemann

17:30 **Keynote lecture: Jennifer Lippincott-Schwartz**
Chair: M. Heilemann
Navigating the cellular landscape with new optical probes, imaging strategies and technical innovations

19:00 **Welcome reception (Pi x Gaumen, Biocentre)**

Thursday, August 29th

Session 1: Biological applications of SMLM

Chair: J. Lippincott-Schwartz & H. Ewers

9:00 **Melike Lakadamyali (inv)**
Probing cargo transport with correlative live cell and super-resolution microscopy

9:25 **Helge Ewers (inv)**
Seeing the forest, tree by tree - single molecule superresolution microscopy of multi protein complexes

9:50 **Bianca Nouvertné**
Super-resolution microscopy reveals specific recruitment of HIV-1 envelope proteins to viral assembly sites dependent on the envelope C-terminal tail

10:05 **Christoph Cremer**
Spectral Position Determination Microscopy (SPDM): Applications in Virology

10:20 **Coffee break**

11:00 **Jan Schmoranzer (inv)**
Improved 3D multi-color dSTORM reveals nano-scale details in the membrane traffic machinery

11:25 **Aleksandra Radenovic (inv)**
Quantitative multicolor localization microscopy

11:50 **Niccolo Banterle**
Absolute stoichiometry of the nuclear pore complex

12:05 **David Lando**
Quantitative single molecule microscopy reveals that CENP-A deposition occurs during G2 in fission yeast

12:20 **Lunch break**

Session 2: Optical technologies

Chair: A. Radenovic

- 14:00** **Jean-Baptiste Sibarita (inv)**
Resolving molecular organization and dynamics of post-synaptic molecules using localization-based super-resolution microscopy
- 14:25** **Jörg Bewersdorf (inv)**
Video-rate nanoscopy of stochastically switching molecules using sCMOS-specific localization algorithms
- 14:50** **Steven Lee**
Three-dimensional super-resolution colocalization of intracellular protein superstructures and the cell surface in live bacteria
- 15:05** **Anne Plochowietz**
Single-molecule fluorescence and FRET in live bacteria using electroporated biomolecules
- 15:20** **Manuel Gunkel**
Correlative light microscopy combining widefield, confocal and dSTORM microscopy for high-throughput and high-resolution imaging

15:35 **Poster session, coffee & fruits**

- 17:30** **Keynote lecture: Markus Sauer**
Chair: M. Heilemann
Localization microscopy coming of age: from concepts to biological impact

20:00 -- **Conference dinner (Restaurant KuBu, Frankfurt)**

Friday, August 30th

Session 3: Probes & labelling strategies for SMLM

Chair: M. Sauer

- 9:00** **Johan Hofkens (inv)**
Rational Development of Smart Fluorophores for Superresolution Imaging
- 9:25** **Virgile Adam (inv)**
Structural evidence for a two-regime photobleaching mechanism in a reversibly switchable fluorescent protein
- 9:50** **Stefan Jakobs**
Switchable fluorescent proteins for super-resolution microscopy
- 10:05** **Viviane Devauges**
Single molecule FRET using the FRAT pair Dronpa/photoactivatable mCherry
- 10:20** **Andriy Mokhir**
Photoswitchable, fluorogenic nucleic acid probes controlled by light of selectable wavelength
- 10:35** **Alexandre Fürstenberg**

Improved Super-Resolution Microscopy with Oxazine Fluorophores in Heavy Water

10:50

Coffee break

Session 4: Approaches for data analysis

Chair: JB. Sibarita

11:30

Bernd Rieger (inv)

Image Resolution in Super-resolution Microscopy

11:55

Dylan Owen (inv)

Extensions to quantitative cluster analysis - bivariate analysis and 3D analysis applied to T cell signalling

12:20

Ullrich Köthe

simpleSTORM - a Fast, Self-Calibrating Reconstruction Algorithm for Localization Microscopy

12:35

Rafael Piestun

Super-resolution and super-localization of dense nanoscale emitters with overlapping point spread functions

12:50

Closing remarks

H. Ewers

13:00

Lunch

Departure