

Conference Program

DAY1 (Tuesday, 27 Feb 2018)

10:00-18:00	Registration (Entrance hall)	
11:30-14:30	WORKSHOPS	
	Room B1	Room B2
11:30-12:30	-	ONI
12:30-13:30	GE Healthcare	-
13:30-14:30	-	Olympus
	CONFERENCE OPENING, Plenary session	
15:00-15:15	Welcome - organizing committee + rector of the university Thomas Huser, Dario Anselmetti, Greg Drummen, Gerhard Sagerer	
	Session 1 (Single molecule methods) – chair: Christian Eggeling	
15:15-15:45	Jörg Enderlein (Georg August University Göttingen, Germany) - <i>Metal Induced Energy Transfer of single molecule fluorescence</i>	
15:45-16:15	Peter Dedecker (KU Leuven, Belgium) - <i>Imaging biosensors at the sub-diffraction level</i>	
16:15-16:30	Company Presentation: ZEISS Agnes von Keller <i>Flexible 3D imaging systems: Combining superresolution, sensitivity, speed and the perfect optical section for your demanding applications</i>	
16:30-17:00	Coffee/Tea break	
17:00-17:15	Poster Blitz (3 min Flash Presentations / 5x) <ol style="list-style-type: none"> Eleni Dimou – <i>Live cell imaging of unconventional secretion of FGF2 by single molecule TIRF microscopy</i> Stephan Bergmann - <i>Photoactivation localization microscopy of cardiomyopathy associated plakophilin-2 mutants</i> Manchen Zhao - <i>Toward quantitative parallel monitoring of single antigen-antibody interactions in single molecule localization microscopy</i> Audrius Jasaitis - <i>Effortless aberration correction enabling single molecule resolution imaging deep in biological samples</i> Florian Ströhl - <i>3D SIM with quadrupled axial resolution</i> 	
17:15-17:30	Lin Wang (Science and Technology Facilities Council, Central Laser Facility, Rutherford Appleton Laboratory, Didcot, United Kingdom) <i>Solid immersion lens-based ultra-resolution cryogenic single molecule localisation microscopy</i>	
17:30-18:00	Stefan Jakobs (MPI Göttingen, Germany) - <i>Live cell nanoscopy with reversibly switchable fluorescent proteins</i>	
18:00-18:30	Ulrike Endesfelder (MPI Marburg, Germany) - <i>New tools for live-cell and quantitative localization microscopy</i>	

18:30-19:30	Keynote Lecture W.E. Moerner (Department of Chemistry, Stanford University, USA) The Promise and Challenges of 3D Super-Resolution Microscopy, Single-Molecule Tracking in Cells, and Trapping of Biomolecules in Solution <i>Introduction: Thomas Huser</i>	
19:30-21:45	Welcome reception	Poster session

DAY2 (Wednesday, 28 Feb 2018)

08:00-10:00	Registration (Entrance hall)	
09:00-09:30	Session 2a (Novel Tools in Optical Nanoscopy) – chair: Erik Manders Christian Eggeling (Friedrich-Schiller University and Leibniz-IPHT Jena, Germany, and Weatherall Institute of Molecular Medicine, University of Oxford, UK) <i>Advanced microscopy tools for dissecting molecular interaction dynamics</i>	
09:30-10:00	Hari Shroff (NIBIB, Bethesda, USA) - <i>Pushing the limits of structured illumination and light sheet microscopy for better live-cell imaging</i>	
10:00-10:30	Coffee/Tea break	
10:30-10:45	Sessions 2b (Type) – chair: Lothar Schermelleh Christian Franke (Biocenter, University of Würzburg, and Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany) - <i>Intensity based 3D Single-Molecule Localization-Microscopy reveals the nanoscale topology of CD4 on resting T cells</i>	
10:45-11:00	Sofya Mikhaleva (European Molecular Biology Laboratory) - <i>In situ mapping of the spatial organization of intrinsically disordered nucleoporins in mammalian cells using super-resolution microscopy</i>	
11:00-11:15	Deanna Wolfson (Department of Physics and Technology, UiT The Arctic University of Norway) - <i>Uptake and Degradation of Bacteriophages by Liver Sinusoidal Endothelial Cells</i>	
11:15-11:30	Lydia Danglot (Centre de Psychiatrie et Neurosciences (Inserm U894), Paris, France) - <i>Exploring molecular organization of synaptic proteins with ICY SODA (Standard Object Distance Analyse) and multiple color super resolution microscopy</i>	
11:30-12:30	Podium discussion 1: Prospects, challenges, and opportunities for in vivo optical nanoscopy <i>Moderator: Peter McCourt (UiT - The Arctic University of Norway); discussants: Friedemann Kiefer (WWU Münster and MPI for Molecular Biomedicine, Germany), Wolfgang Hübner (University of Bielefeld, Germany), Hari Shroff (NIBIB, Bethesda, USA), Christian Eggeling (FSU Jena & Leibniz-IPHT Jena, Germany, and University of Oxford, UK)</i>	
12:30-14:15	Lunch break	Poster session
14:15-14:30	Company Presentation LEICA: Presenter - STED nanoscopy: exciting developments for life scientists	
14:30-14:40	Company Blitz (5 min Flash Presentations / 2x)	

	<ol style="list-style-type: none"> 1. AHF Michael Sommerauer – <i>When flatness matters: Enhance your results in super-resolution microscopy with an optimally adapted optical setup</i> 2. Agilent Jesper Hojlund – <i>Spend more time on research and less time on administration</i>
14:40-14:55	<p align="center">Company presentation ABBERIOR: Mathias Reuss - <i>STED nanoscopy and beyond: breaking more barriers</i></p>
	Sessions 3a (Type) – chair: Mark Schüttpelz
14:55-15:10	<p align="center">Poster Blitz (3 min Flash Presentations / 5x)</p> <ol style="list-style-type: none"> 1. Veit Schubert – <i>How a plant centrosome can be organized - data from structured illumination microscopy</i> 2. Katharina Scherer - <i>High resolution imaging and single particle tracking of herpes virus</i> 3. Ivan Michel Antolovic – <i>A 5 Gigaevent-per-second SPAD array for super-resolution microscopy</i> 4. Roel Oldenkamp – <i>Functional chromatin domain network organization assayed by quantitative 3D super-resolution imaging</i> 5. Jasmin Pape - <i>Nanometer localization of fluorescent molecules with minimal photon fluxes</i>
15:10-15:25	K. S. Grubmayer (Ecole Polytechnique Fédérale de Lausanne, Laboratoire d'Optique Biomédicale, Lausanne, Switzerland) - <i>Combined Multi-Plane Phase Retrieval and Super-Resolution Optical Fluctuation Imaging for 4D Cell Microscopy</i>
15:25-15:40	Thomas Mangeat (LBCMCP, Center for Integrative Biology (CBI), Université de Toulouse CNRS UPS, France) - <i>A Versatile 3D Superresolution Speckle imaging for a wide range of biological applications</i>
15:40-15:55	Marcel Müller (Laboratory for NanoBiology, Department of Chemistry, KU Leuven, Belgium) - <i>fairSIM – an open project for fast 2D and 3D SIM reconstruction</i>
15:55-16:10	Sjoerd Stallinga (Department of Imaging Physics, Delft University of Technology, Delft, The Netherlands) - <i>Noise controlled image reconstruction for Structured Illumination Microscopy</i>
16:10-16:45	Coffee/Tea break
	Session 3b (Type) – chair: Sara Abrahamsson
16:45-17:15	Achillefs Kapanidis (Oxford University, Oxford, UK) - <i>Single-molecule tracking of gene machines in living bacteria</i>
17:15-17:45	Bernd Rieger (TU Delft, The Netherlands) - <i>Calibrating photon counts from a single image</i>
18:00-19:00	<p>Keynote Lecture Alberto Diaspro (Department of Nanophysics, Istituto Italiano di Tecnologia, Genoa, Italy) A new paradigm in Microscopy: a liquid tunable microscope <i>Introduction: Christian Eggeling</i></p>
19:30- 20:30	Poster Session

DAY3 (Thursday, 1 March 2018)

08:00-10:00	Registration (Entrance hall)
	Session 4a (Type) – chair: Peter McCourt
09:00-09:30	Mike Heilemann (Goethe University Frankfurt, Germany) - <i>Counting subunits within receptor complexes using single-molecule localization microscopy</i>
09:30-10:00	Asmamaw T Wassi (Massachusetts Institute of Technology, Boston, USA) - <i>Nanoscale Biomolecular Mapping with Expansion Microscopy</i>
10:00-10:30	Maxime Dahan (Institut Curie, Paris, France) - <i>The promises and challenges of high-density single-molecule imaging : application to the supramolecular organization of Rac1</i>
10:30-11:00	Coffee/Tea break
	Sessions 4b (Type) – chair: Oliver Biehlmaier
11:00-11:15	Clément Cabriel (Institut des Sciences Moléculaires d'Orsay, Université Paris-Sud, CNRS UMR 8214, Orsay France) - <i>Combining 3D single molecule localization strategies for reproducible multicolor bioimaging</i>
11:15 -11:30	Amy Davies (Institute of Biological Chemistry, Biophysics and Bioengineering Heriot-Watt University) - <i>Re-engineering enzymes as dSTORM detection agents</i>
11:30-11:45	Francesca Pennacchietti (KTH Royal Institute of Technology/Science for Life Laboratory, Tomtebodavägen 23A, 17165 Stockholm, Sweden) - <i>Enhanced Photon Collection enables Four-Dimensional Fluorescence Nanoscopy of Living Systems</i>
11:45-12:00	Hans Blom (Department of Applied Physics, Royal Institute of Technology, Stockholm, Sweden) - <i>Resolving Nanoscale Structures in Kidneys with Light Microscopy</i>
12:00-12:15	Company Presentation CONFOCAL.NL: Erik Manders - <i>Re-scan Confocal Microscopy (RCM): toward SIM-resolution</i>
12:15-12:30	Company Presentation ABBELIGHT: Nicolas Bourg - <i>3D isotropic super-resolution microscope (based on DONALD technology) with real 15 nm precision</i>
12:30-13:30	Lunch break
	Sessions 5a (Type) – chair: Gregor Drummen
13:30-13:45	Robin Diekmann (Cell Biology and Biophysics EMBL Heidelberg, Germany) - <i>Photon-free calibration of CMOS cameras for nanoscopy</i>
13:45-14:00	Marcus Fantham (Department of Chemical Engineering and Biotechnology University of Cambridge, Cambridge, UK) - <i>One-Click Sharing of 3d Data using Fpbioimage for Volumetric Visualisation on the Web</i>
14:00-14:15	Hamidreza Heydarian (Quantitative Imaging Group, Department of Imaging Science and Technology, Delft University of Technology, Delft, The Netherlands) - <i>Template-free 2D-particle fusion of localization microscopy images produces $\lambda/150$ resolution</i>
14:15-14:30	Katie Heiser (Double Helix LLC, Boulder, Colorado, USA) - <i>High Depth, High Precision, Three-Dimensional Super-Resolution Imaging and Particle Tracking with the Double Helix SPINDLE™</i>
14:30-14:45	Fabian Jolmes (PicoQuant, Rudower Chaussee 29, 12489 Berlin, Germany) -

	<i>Time-Resolved STED Microscopy for Super-Resolved Multi-Species-Imaging and Sub-Diffraction Diffusion Studies with a Variable Observation Volume</i>
14:45-15:15	Coffee/Tea break
	Session 5b (Type) – chair: Markus Sauer
15:15-15:45	Ralf Jungmann (MPI Martinsried, Germany) - <i>Super-resolution microscopy with DNA-PAINT</i>
15:45-16:45	Keynote Lecture Jennifer Lippincott-Schwartz (Section on Organelle Biology, National Institutes of Health, USA) Unraveling the spatial and temporal dynamics of subcellular organelles <i>Intro: Markus Sauer</i>
16:45-17:00	Conference PHOTO
17:00-18:30	Poster session
18:30	leave for Hechelei, Ravensberger Park, Bielefeld
19:00-23:00	CONFERENCE DINNER Hechelei, Ravensberger Park, Bielefeld http://ravensberger-park.de/start.html

DAY4 (Friday, 2 March 2018)

08:00-10:00	Registration (Entrance hall)
	Session 6a – chair: Lothar Schermelleh
09:00-09:30	Mark Schüttzel (University of Bielefeld, Bielefeld, Germany) - <i>Super-resolution microscopy in HD with planar waveguides</i>
09:30-10:00	Sara Abrahamsson (University of California, Santa Cruz, USA) - <i>Multifocus microscopy in deeper sample volumes</i>
10:00-10:15	Dominik Wöll (Institute of Physical Chemistry, RWTH Aachen, Aachen, Germany) - <i>Diarylethene photoswitches for superresolution fluorescence microscopy</i>
10:15-10:30	Flavie Lavoie-Cardinal (School of Computer Science, McGill University, Montreal, Canada) - <i>Towards intelligent nanoscopy: machine learning based optimization platform applied to super-resolution microscopy</i>
10:30-11:00	Coffee/Tea break
11:00-11:45	Podium discussion 2: <i>Super-resolution microscopy and deep learning - a perfect match?</i> Moderator: Greg Drummen (BioNanoSolutions); discussants: Flavie Lavoie-Cardinal (McGill University, Montreal, Canada), Ivan Michel Antolovic (TU Delft, The Netherlands), XXXX (Affiliation)
	Session 6b – chair: Edoardo Charbon
11:45-12:00	Katrin Heinze (Rudolf Virchow Center, Research Center for Experimental Biomedicine, University of Würzburg) - <i>Boosting the localization precision in single molecule localization microscopy by nano-coated coverslips</i>
12:00-12:30	Kseniya Korobchevskaya (Oxford University, Oxford, UK) - <i>Airyscan advanced imaging in living cells</i>

ICON 2018

27 FEBRUARY – 02 MARCH 2018

as of Feb 16, 2018

12:30-13:00	Theo Lasser (Ecole Polytechnique Fédérale de Lausanne, Laboratoire d'Optique Biomédicale, Lausanne, Switzerland) - <i>Seeing entails Knowing</i>
	CLOSING CONFERENCE, plenary
13:00-13:30	<i>Poster Prize giving / Closing and Introduction ICON 2020 Greg Drummen, Thomas Huser, Lothar Schermelleh</i>