

Monday 25.09.2017

18:30 – 20:30 DINNER

20:30 – 20:40 **Welcome message**

Chair: Ingo Gregor

20:40 – 21:10 **Eyal Nir** (Ben-Gurion University of the Negev, Beersheba, Israel)
"Fast and Efficient DNA Molecular Machines: A Bipedal Walker"

21:10 - ... **POSTER SESSION**

Tuesday 26.09.2017

Chair: Andreas Neef

9:00 - 9:30 **Florian Rehfeldt** (Georg-August-University Göttingen, Germany)
"Cell and Matrix Mechanics: Cytoskeleton Organization Controls the Nucleus"

9:30 - 9:50 **Galina Kudryasheva** (Georg-August-University Göttingen, Germany)
"Cell-Type Specific Mechano-Sensing altered by Blebbistatin"

9:50 - 10:10 **Amna Abdalla Mohammed Khalid** (Georg-August-University Göttingen, Germany)
"Single molecule studies of MKLP2 mitotic kinesin regulation and mechanism"

10:10 - 10:30 **Daniel Härtter** (Georg-August-University Göttingen, Germany)
"Sarcomere mechanics of hES derived cardiomyocytes"

10:30 - 11:00 COFFEE BREAK

Chair: Robert Ros

11:00 - 11:20 **Renata Garces** (Georg-August-University Göttingen, Germany)
"Passive and active response of bacteria under mechanical compression"

11:20 - 11:40 **Stefan Klumpp** (Georg-August-University Göttingen, Germany)
TBA

11:40 - 12:00 **Nadine Kamprad** (Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany)
"Mechanics and dynamics of Dictyostelium discoideum adhesion"

12:00 - 12:30 **Maciej Wojtkowski** (Nicolaus Copernicus University, Toruń, Poland)
"Spatio-Temporal Optical Coherence techniques for in vivo imaging"

Wednesday 27.09.2017

Chair: Stefan Klumpp

9:00 - 9:30 **Hagen Hofmann** (Weizmann Institute of Science, Rehovot, Israel)
TBA

9:30 - 10:00 **Thomas Huser** (Biomolecular Photonics, University of Bielefeld, Germany)
"Speeding up optical nanoscopy by parallel-processing of image data"

10:00 - 10:30 **Robert Ros** (Arizona State University, Tempe, USA)
TBA

10:30 - 10:50 COFFEE BREAK

Training session

10:50 - 11:10 **Alexey Chizhik** (Georg-August-University Göttingen, Germany)
"Simple steps towards graphical excellence"

21:00 - ... **POSTER SESSION**

Thursday 28.09.2017

Chair: Thomas Huser

- 9:00 - 9:30 **Kishan Dholakia** (University of St. Andrews, St. Andrews, UK)
TBA
- 9:30 - 9:50 **Sebastian Kruss** (Georg-August-University Göttingen, Germany)
"Near infrared fluorescent nanosensors for chemical imaging of chemical communication between cells"
- 9:50 - 10:10 **Roman Tsukanov** (Georg-August-University Göttingen, Germany)
"Static and Dynamic Applications of Metal-Induced Energy Transfer: Resolving Nanometer Distances and Dynamics at Single Molecule Level"
- 10:10 - 10:30 **Arindam Ghosh** (Georg-August-University Göttingen, Germany)
"Fluorescence Lifetime Correlation Spectroscopy (FLCS) of microsecond rotational isomerization in a fluorescent protein"
- 10:30 - 11:00 COFFEE BREAK

Chair: Dieter Klopfenstein

- 11:00 - 11:20 **Sebastian Isbaner** (Georg-August-University Göttingen, Germany)
"Superresolution Upgrade for Confocal Spinning Disk Systems"
- 11:20 - 11:40 **Narain Karedla** (Georg-August-University Göttingen, Germany)
"Dynamics using Metal Induced Energy Transfer (DynaMIET): Probing Nanoscale Biomolecular Dynamics at Single-Molecule Level"
- 11:40 - 12:00 **Ingo Gregor** (Georg-August-University Göttingen, Germany)
"Rapid Non-linear Image Scanning Microscopy"
- 12:00 - 12:30 **Santiago Costantino** (Department of Ophthalmology, Université de Montréal, Montreal, Canada)
"Optical labeling and manipulation of live single cells"

Friday 29.09.2017

Chair: Florian Rehfeldt

- 9:00 - 9:30 **Stefan Luther** (Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany)
TBA
- 9:30 - 10:00 **Ulrich Parlitz** (Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany)
"Data Assimilation and Parameter Estimation in Life Sciences"
- 10:00 - 10:20 **Filipo Cusi** (Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany)
"Nonlinear Dynamics of Calcium Cycling in Cardiomyocytes"
- 10:20 - 10:40 **Andreas Neef** (Max Planck Institute for Dynamics and Self-Organization Göttingen, Germany)
"Tuning a hair trigger. Action potential initiation for a large encoding bandwidth"
- 10:40 - 11:10 COFFEE BREAK

Chair: Jörg Enderlein

- 11:10 - 11:30 **Gerti Beliu** (Department of Biotechnology & Biophysics, University Würzburg, Germany)
"Unnatural amino acids for live cell labeling and super-resolution microscopy"
- 11:30 - 11:50 **Chonglin Guan** (Georg-August-University Göttingen, Germany)
"Functional analysis of chordotonal organ mechanics in vivo"
- 11:50 - 12:10 **Kengo Nishi** (Georg-August-University Göttingen, Germany)
"Bending dynamics of single-walled carbon nanotubes in viscoelastic medium"
- 12:10 - 12:25 **CLOSING REMARKS**