Wednesday, 22 November

8am **Registration**
Welcome Desk

8:50am **Opening Session**
Auditorium

9am **Plenary Session**
Auditorium
Chaired by: Prof. Frank Vollmer and Dr. Felix Ritort

9am **Co-translational protein folding, one molecule at a time**
» Prof. Carlos Bustamante

9:40am **Toward on-chip molecular fingerprinting of heterogeneous cell secretomes**
» Prof. Romain Quidant

10:20am **Coffee Break**
Poster Aera

10:50am **Micro/Nanofluidics/Chemical control at the Nanoscale**
Auditorium
Chaired by: Dr. Martin Baaske

10:50am **"Quantum Biology": how nature harnesses quantum processes to function optimally, and how might we control such quantum processes to therapeutic and tech advantage**
» Dr. Clarice D. Aiello

11:17am **Nanofluidic Scattering Microscopy: Mass Photometry of Macromolecules In Motion**
» Mr. Bohdan Yeroshenko, Mr. Henrik Klein Moberg, Dr. David Albinsson, Dr. Daniel Midtvedt, Dr. Joachim Fritzsche, Prof. Giovanni Volpe, Prof. Christoph Langhammer

11:34am **The influence of ascorbic acid and iron loading on the dynamic behaviour of single, native ferritin**
» Mr. Arman Yousefi, Dr. Cuifeng Ying, Dr. Christopher Parmenter, Mrs. Mahya Assadipapari, Mr. Gabriel Sanderson, Mr. Ze Zheng, Dr. Lei Xu, Mr. Saaman Zargarbashi, Dr. Graham Hickman, Prof. Mohsen Rahmani

11:51am **New methodologies for single molecule imaging using the fluorous effect**
» Dr. Marina Santana Vega, Dr. Carlos Bueno Alejo, Dr. Andrea Taladriz Sender, Mr. Max Wills, Prof. Ian Eperon, Prof. Glenn Burley, Prof. Andrew Hudson, Prof. Alasdair Clark

10:50am **Molecular Machines, Synthetic Biology, and DNA Origami**
Room 607
Chaired by: Prof. Frank Vollmer

10:50am **Mechanism and function of Smc5/6-mediated DNA loop extrusion**
» Dr. Eugene Kim

11:17am **Developing a motility-based whole-cell biosensor**
» Ms. Diana Coroiu, Dr. Amritha Janardanan, Dr. James Flewellen, Prof. Teuta Pilizota

11:34am **Hybrid gold-DNA origami nanostructures for colorimetric sensing**
» Ms. Claudia Corti, Ms. Elise Gayet, Ms. Nesrine Aissaoui, Ms. Sylvie Marguet, Mr. Gaetan Bellot, Mr. Sébastien Bidault

11:51am **A DNA nanoswitch as an architecture for continuous biosensing with single molecule detection**
» Ms. Anna Swietlikowska, Mr. Livio Oliveira de Miranda, Prof. Peter Zijlstra, Prof. Maarten Merkx

10:50am **Molecular Electronics**
Room 608
Chaired by: Dr. Jacob Teeter

10:50am **Conduction properties of bacterial nanowires probed by Scanning Dielectric Microscopy**
» Prof. Gabriel Gomila

Continued from **Wednesday, 22 November**

11:17am **Electron transfer measurement in cytochrome c**
» Dr. Alexandre Gomila, Dr. Gonzalo Pérez-Mejías, Dr. Alba Nin-Hill, Dr. Alejandra Guerra-Castellano, Ms. Laura Casas-Ferrer, Ms. Sthefany Ortiz-Tescari, Prof. Antonio Díaz-Quintana, Prof. Josep Samitier, Prof. Carme Rovira, Prof. Miguel A. De la Rosa, Prof. Irene Díaz-Moreno, Prof. Pau Gorostiza, Dr. Marina I. Giannotti, Dr. Anna Lagunas

11:34am **Interferometric biosensor for high sensitive label-free recording of HiPS cardiomyocytes contraction in-vitro**
» Dr. Alessio Boschi, Dr. Giuseppina Iachetta, Dr. Salvatore Buonocore, Dr. Michele Dipalo, Prof. Francesco DeAngelis

12:05pm **Lunch Break**
Partners Restaurants

1:30pm **Poster Session**
Poster Aera

Designing a single molecule refractive index sensor based on DNA origami and plasmonic nanoparticles
» Mr. Malthe von Tangen Sivertsen, Mr. Kasper Okholm, Prof. Duncan Sutherland

Single molecule orientation localization microscopy for supramolecular polymers
» Dr. Hailin Fu, Dr. Yuyang Wang, Prof. Peter Zijlstra, Prof. E.W. (Bert) Meijer

Multimode optomechanical weighing and elastometry of individual nanoparticles
» Mr. Louis Waquier, Dr. Samantha Sbarra, Mr. Stephan Suffit, Dr. Aristide Lemaître, Dr. Ivan Favero

Sensing with single organic molecules at room temperature
» Ms. Anežka Dostálová, Dr. Robert Stárek, Prof. Miroslav Jezek

Reversible Covalent Bonds for Trapping Single Proteins Transiently in Nanopores
» Mr. Yuanjie Li, Prof. Michael Mayer, Dr. Saurabh Awasthi

Improved Reuse and Storage Performances at Room Temperature of a New Environmental-Friendly Lactate Oxidase Biosensor Made by Ambient Electrospray Deposition (ESD)
» Dr. Antonella Cartoni, Dr. Mattea Carmen Castrovilli, Dr. Viviana Scognamiglio, Dr. Emanuela Tempesta, Dr. Jacopo Chiarinelli, Dr. Maria Antonietta Parracino, Dr. Valeria Frisulli, Dr. Maria Teresa Giardi, Dr. Lorenzo Avaldi, Dr. Danae Rossi

Exploration of single-molecule protein dielectrophoresis by means of trapping and actuation
» Mrs. Janike Bolter, Mr. Jamal Soltani, Mr. Jacco Ton, Dr. Théo TRAVERS, Mr. Dmytro Shavlovskyi, Mr. Daniel Wijnperle, Prof. Michel Orrit, Dr. Sergii Pud

Single-Molecule Footprinting of Netropsin-DNA Binding
» Dr. Isabel Pastor, Dr. Marc Rico-Pasto, Dr. Felix Ritort

Investigating the velocity and diffusion of helicase gp41 using magnetic tweezers: A theoretical approach
» Mr. Victor Rodríguez Franco, Dr. Maria Manosas, Dr. Felix Ritort

NON-POROUS COORDINATION POLYMERS ACTING AS POROUS AS A VERSATILE PLATFORM FOR REVERSIBLE OPTO-ELECTRONIC READ-OUTS DISPLAYS
» Dr. Jose Sanchez Costa

Electric-field driven microfluidic devices for affinity-based protein separation
» Mr. Alexandre S. Avaro, Prof. Andrew D. Griffiths, Prof. Juan G. Santiago

Plasmonic bowl-shaped nanopore using Raman Spectroscopy for sequencing of translocating DNA
» Dr. Sudarson Sinha, Prof. Francesco DeAngelis, Dr. Yingqi Zhao, Dr. Aliaksandr Hubarevich, Dr. Marzia Iarossi

Continued from **Wednesday, 22 November**

Understanding an artificial motor proteins using Langevin simulations
» Dr. Michael Konopik, Mr. Olivier Laprévote, Prof. Paul Curmi, Prof. Birte Höcker, Prof. Heiner Linke, Prof. Ralf Eichhorn

The BIODIVERSI project for the discovery of biomarkers
» Dr. Anna Rita Casavola, Dr. Donatella Schiumarini, Dr. Jacopo Chiarinelli, Dr. Francesco Porcelli, Dr. Alessandro Grottesi, Dr. Paola Bolognesi, Dr. Antonella Cartoni, Dr. Lorenzo Avaldi

Multiplexing nanobody kinetics measurements at the single-molecule level
» Ms. Ghada Mansour, Dr. Sebastian Hutchinson, Ms. Ellyn Redheuil, Mr. Ahmed Rehan, Dr. Adeline Pichard-Kostuch, Dr. Marco Ribezzi-Crivellari, Prof. Andrew D. Griffiths

Semi-Empirical Haken-Strobl Model for Molecular Spin Qubits
» Ms. Katy Aruachan, Prof. Yamil Colon, Prof. Daniel Aravena, Prof. Felipe Herrera

Two methods for studying the dynamics of the bioluminescent enzyme: NanoLuc
» Ms. Alice Attenborough, Prof. Frank Vollmer, Dr. Daniel Kattnig

Acousto-optical ultra-low concentration nanoparticle detection
» Dr. Robert Stárek, Prof. Miroslav Jezek

Sensing of single emitters enabled by silver nanostructures
» Dr. Marcin Szalkowski, Ms. Karolina Sulowska, Mr. Michał Mac, Prof. Joanna Niedziółka-Jönsson, Prof. Dorota Kowalska, Prof. Dawid Piątkowski, Prof. Sebastian Maćkowski

Planar scanning probes – A new platform for nanoscale magnetometry with NV centers and near-field microscopy
» Mr. Paul Weinbrenner, Ms. Patricia Quellmalz, Dr. Christian Giese, Ms. Monika Scheufele, Mr. Manuel Müller, Dr. Matthias Althammer, Dr. Stephan Geprägs, Prof. Rudolf Gross, Prof. Friedemann Reinhard

Hypertension alters the function and expression profile of the peptide cotransporters PEPT1 and PEPT2 in the rodent renal proximal tubule
» Dr. Othman Alghamdi

Single-molecule detection, analysis, and manipulation with advanced modes of atomic force microscopy
» Mr. Jan Přibyl, Mrs. Radka Obořilová, Dr. Jarmila Mlčoušková

2:30pm **Plenary Session**
Auditorium
Chaired by: Prof. Carlos Bustamante

2:30pm **AAdventures in DNA and chromatin replication using single-molecule biophysics**
» Prof. Nynke Dekker

3:10pm **Quantum and quantum-limited methods for molecular imaging**
» Prof. Warwick Bowen

3:50pm **Coffee Break**
Poster Aera

4:20pm **Nanothermodynamics in experiments and theory**
Auditorium
Chaired by: Prof. Timo Betz

4:20pm **Maxwell Demon that Can Work at Macroscopic Scales**
» Prof. Massimiliano Esposito

4:47pm **Tracking motion of tethered particles with nanoscale tunnel junctions**
» Mr. Juraj Topolancik, Dr. Patrick Braganca, Dr. Seoung-Ho Shin, Mr. Flint Mitchell

Continued from **Wednesday, 22 November**

5:04pm **Intracavity dual-beam optical trap with transverse offset**
» Dr. Antonio Ciarlo, Dr. Giuseppe Pesce, Dr. Fatemeh Kalantarifard, Prof. Parviz Elahi, Dr. Agnese Callegari, Prof. Giovanni Volpe, Prof. Antonio Sasso

5:21pm **A piston like information engine operating on a colloidal suspension**
» Prof. Yael Roichman, Mr. Gilad Pollack, Dr. Remi Goerlich, Prof. Saar Rahav

5:38pm **Optomechanical measurement of single nanodroplet evaporation with millisecond time-resolution**
» Dr. Samantha Sbarra, Mr. Louis Waquier, Mr. Stephan Suffit, Dr. Aristide Lemaître, Dr. Ivan Favero

5:55pm **Stacking cooperativity in single-stranded DNA**
» Dr. Xavier Viader-Godoy, Dr. Maria Manosas, Dr. Felix Ritort

6:12pm **Temperature sensing at the microscale with optically trapped microgels.**
» Prof. Raúl Rica

4:20pm Single-molecule Sensors and Sequencers

Room 607

Chaired by: Prof. Jens Gundlach

4:20pm **Plasmonic Solid State Nanopores for single biomolecule identification**
» Prof. Francesco DeAngelis

4:47pm **Enhancing the Sensitivity of Silica Microresonator-based Biosensors through Adding a Perovskite Coating**
» Dr. Mandana Jalali, Prof. Daniel Erni

5:04pm **Nanosecond transient plasmonic single-protein detection**
» Dr. Martin Baaske

5:21pm **Continuous single-molecule sensing based on particle motion: how do single-molecule sensors change over several days?**
» Mr. Chris Vu, Mr. Sebastian Cajigas, Dr. Junhong Yan, Dr. Arthur de Jong, Prof. Menno Prins

5:38pm **Real-time Tracking of Protein Corona Formation on Single Nanoparticles**
» Dr. Mathias Dolci, Dr. Yuyang Wang, Mr. Sjoerd Nooteboom, Dr. Paul Soto Rodriguez, Prof. Samuel Sanchez, Dr. Lorenzo Albertazzi, Prof. Peter Zijlstra

5:55pm **Optical Microcavity Measurement of Aspect Ratio of Gold Nanorods in Water**
» Ms. Yumeng Yin, Dr. Aurelien Trichet, Prof. Jason Smith

6:12pm **Hexagonal plasmonic nanostructure arrays for high-throughput multicolor single-molecule detection**
» Mr. Ediz Kaan Herkert, Mr. Roger Pons Lanau, Mr. Lukas Lau, Prof. Maria F. Garcia-Parajo

4:20pm Single-Molecule Spectroscopy, Imaging, and Forces

Room 608

Chaired by: Prof. Frank Vollmer

4:20pm **How kinesins walk - it's not how you thought!**
» Prof. Erik Schäffer

4:47pm **Plasmon-enhanced single-molecule biosensing for continuous monitoring in complex matrices**
» Mr. Vincenzo Lamberti, Prof. Peter Zijlstra, Dr. Mathias Dolci

5:04pm **Adsorption and Kondo signature of stable π-radical BDPA on Cu(100)**
» Dr. Jacob Teeter, Dr. Daniel Miller, Dr. Stefan Müllegger

5:21pm **Fast molecule-spanning dynamics in a multi domain protein by single-molecule fluorescence**
» Ms. Veronika Frank, Dr. Benedikt Sohmen, Dr. Steffen Wolf, Dr. Jean-Benoît Claude, Dr. Jérôme Wenger, Prof. Thorsten Hugel

Continued from **Wednesday, 22 November**

5:38pm **Combination of TIRF and Mass Photometry for single molecule detection of biomolecules**
» Dr. Carlos Bueno Alejo, Prof. Andrew Hudson, Prof. Ian Eperon

5:55pm **Label-free tracking of proteins through plasmon enhanced interference**
» Mr. Matthew Peters, Mr. Declan McIntosh, Dr. Alexandra Branzan Albu, Dr. Cuifeng Ying, Dr. Reuven Gordon

6:12pm **Cold phase transition in RNA**
» Dr. Paolo Rissone, Mr. Aurelien Severino, Dr. Isabel Pastor, Prof. Felix Ritort

6:30pm **Short Break : Beer and Tapas**
Poster Aera

7pm **Theatre**
Auditorium

Thursday, 23 November

8:30am **Registration**
Welcome Desk

9am **Plenary Session**
Auditorium
Chaired by: Prof. Romain Quidant

9am **Virus traps and other molecular machines of the future**
» Prof. Hendrik Dietz

9:40am **Plasmonic and dielectric nanostructures for enhanced light harvesting, emission control, and nanometrology**
» Prof. Stefan Maier

10:20am **Coffee Break**
Poster Aera

10:50am **Single-Molecule Spectroscopy, Imaging, and Forces**
Auditorium
Chaired by: Prof. Achillefs Kapanidis

10:50am **Stochastic microscopy of living cells: towards a thermodynamic theory of biological performance (provisional)**
» Prof. Francisco Monroy

11:17am **Label-free single-molecule detection of biomolecules in free motion using Nanofluidic Scattering Microscopy**
» Dr. Tereza Roesel, Dr. Barbora Špačková

11:34am **Real-time microsecond dynamics of single biomolecules probed by plasmon-enhanced fluorescence**
» Mr. Sjoerd Nooteboom, Mr. Kasper Okholm, Mr. Vincenzo Lamberti, Mr. Bas Oomen, Prof. Duncan Sutherland, Prof. Peter Zijlstra

11:51am **Minitweezers 2.0: paving the way for fully autonomous optical tweezers experiments**
» Mr. Martin Selin, Dr. Antonio Ciarlo, Dr. Giuseppe Pesce, Dr. Joan Camuñas-Soler, Dr. Vinoth Sundar Rajan, Prof. Fredrik Westerlund, Prof. Marcus Wilhelmsson, Dr. Isabel Pastor, Dr. Felix Ritort, Dr. Steven Smith, Prof. Giovanni Volpe

10:50am **Computational approaches**
Room 607
Chaired by: Dr. Paolo Rissone

10:50am **Pushing the limits of detection of biomolecules with light and machine learning**
» Prof. Giovanni Volpe

Continued from **Thursday, 23 November**

11:17am **Single-layer MoS2 Nanopores for Coarse-Grained Sequencing of Proteins**
» Dr. Adrien Nicolaï, Ms. Andreina Urquiola Hernandez, Dr. Patrice Delarue, Dr. Christophe Guyeux, Prof. Patrick Senet

11:34am **Machine-learning-based Single-molecule Quantification of Circulating MicroRNA Mixtures**
» Prof. Yuval Ebenstein

10:50am **Nanothermodynamics in experiments and theory**
Room 608
Chaired by: Prof. Jim Al-Khalili

10:50am **The Mean Back Relaxation: a new observable to quantify non-equilibrium from simple trajectories**
» Prof. Timo Betz

11:17am **Dielectrophoresis as a label-free tool to study properties of single sub-30 nm nanoparticles**
» Dr. Sergii Pud, Mr. Jacco Ton, Dr. Théo TRAVERS, Mr. Jamal Soltani, Mrs. Janike Bolter, Mr. Daniel Wijnperle, Mr. Dmytro Shavlovskyi, Prof. Michel Orrit

11:34am **Development of Plasmonic-Nanopore Sensing for Thermally Controlled Biopolymer Sequencing Applications**
» Dr. Tadas Penkauskas, Mr. Addhyaya Sharma, Mr. Shankar Haridas, Dr. Joseph Robertson

11:51am **Single-Molecule Thermodynamic Penalties Applied by Whispering Gallery Mode Biosensors**
» Mr. Matthew Houghton, Dr. Nikita Toropov, Dr. Stefan Bagby, Prof. Frank Vollmer

12:05pm **Lunch Break**
Partners Restaurants

1:30pm **Poster Session**
Poster Aera

Spectral reshaping of a single fluorophore in a plasmonic cavity
» Mr. Sachin Verlekar, Ms. Maria Sanz-Paz, Dr. Mario Zapata, Dr. Mauricio Pilo-Pais, Prof. Ruben Esteban, Prof. Javier Aizpura, Prof. Christophe Galland

Plasmon-enhanced fluorescence probing of fast protein interactions using low-quantum-yield dyes
» Mr. Roy Teeuwen, Dr. Souvik Ghosh, Dr. Johannes Broichhagen, Prof. Maarten Merkx, Prof. Peter Zijlstra

Measuring Nanobody Kinetics at the Single-Molecule Level
» Ms. Ellyn Redheuil, Dr. Sebastian Hutchinson, Ms. Ghada Mansour, Dr. Adeline Pichard-Kostuch, Mr. Ahmed Rehan, Dr. Marco Ribezzi-Crivellari, Prof. Andrew D. Griffiths

A unified approach based on dielectrophoresis and SERS for protein transport and sensing
» Dr. Siarhei Zavatski, Prof. Olivier Martin

Ambient Electrospray Deposition: an Efficient Technique to Immobilize Laccase on cheap electrodes with unprecedented Reuse and Storage Performances
» Dr. Mattea Carmen Castrovilli, Dr. Emanuela Tempesta, Dr. Antonella Cartoni, Dr. Paolo Plescia, Dr. Paola Bolognesi, Dr. Jacopo Chiarinelli, Dr. Pietro Calandra, Dr. Nunzia Cicco, Dr. Maria Filomena Verrastro, Dr. Diego Centonze, Ms. Ludovica Gullo, Dr. Alessandra Del Giudice, Dr. Luciano Galantini, Dr. Lorenzo Avaldi

Fuel-driven processes in DNA-biosensors investigated by optical tweezers
» Dr. Xavier Viader-Godoy, Dr. Riccardo Tancredi, Dr. Erica Del Grosso, Dr. Francesco Ricci, Dr. Leonard Prins, Dr. Annamaria Zaltron

Molecular probes for the monitoring of neuron membrane potential with two-photon microscopy
» Ms. Zsofia Horvath, Ms. Reka Lanyi, Dr. Zoltan Mucsi, Dr. Levente Cseri

Continued from **Thursday, 23 November**

Optical contrast inversion of metal nanoparticles in a nanofluidic channel
» Ms. Lova Wilske, Prof. Christoph Langhammer

Nanodiamonds for nanoscale thermometry: applications and limits
» Prof. Anna Ermakova

Reversible quantum-dot cellular automata digital circuits with ultralow energy dissipation
» Mr. Mohammed Alharbi, Dr. Gerard Edwards, Dr. Richard Stocker

Bringing the power of DNA sequencing to metabolite detection
» Prof. Andrew Fraser, Dr. June Tan

Deciphering the Mechanisms of λ-DNA Translocation through Nanopipettes
» Mr. Alejandro Colchero, Dr. Isabel Pastor, Dr. Felix Ritort

Thermoplasmonics based control of nano scale fluid flows for structure assembly
» Mr. Desmond Joseph Quinn, Dr. Diptabrata Paul, Prof. Frank Cichos

Infrared Nanoimaging of Hydrogenated Perovskite Nickelate Memristive Devices
» Prof. yohannes abate

Single-molecule detection of protein phosphorylation using chemical labeling
» Mr. Moon Hyeok Choi, Dr. Mike Filius, Prof. Chirlmin Joo

Directing Surface Functionalization of Gold Nanorods for Improved Optical Biosensors
» Dr. David Botequim, Dr. Rui Oliveira-Silva, Dr. Vanda V. Serra, Prof. Ana S. Viana, Prof. Peter Zijlstra, Prof. Duarte M. F. Prazeres, Prof. Sílvia M. B. Costa, Dr. Pedro M. R. Paulo

Combing of single DNA molecules over interfaces having dual characteristics
» Dr. Hemendra Yadav

DETECTION THE ICE FORMATION PROCESSES USING MULTIPLE HIGH ORDER ULTRASONIC GUIDED WAVE MODES
» Dr. Regina Rekuviene, Dr. Vykintas Samaitis, Dr. Audrius Jankauskas, Prof. Liudas Mažeika, Prof. Virginija Jankauskaitė, Ms. Laura Gegeckienė, Dr. Abdolali Sadaghiani, Dr. Shaghayegh Saeidiharzand, Prof. Ali Koşar

Optical near-field electron microscopy (ONEM)
» Mr. Ilia Zykov, Prof. Thomas Juffmann

Investigations on electrochemical, spectroelectrochemical and piezoelectrical analysis on heavy metal ions interactions with receptor layers based on DNA strands
» Dr. Robert Ziółkowski, Mrs. Anna Szymczyk, Prof. Marcin Olszewski, Prof. Elżbieta Malinowska

Experimental Measurement of Information-Content in Mutational Ensembles
» Dr. Alvaro M. Monge, Dr. Danny Incarnato, Dr. Anna Alemany, Dr. Marco Ribezzi, Dr. Maria Manosas, Dr. Felix Ritort

2:30pm **Plenary Session**
Auditorium
Chaired by: Prof. Warwick Bowen

2:30pm **Quantum Advances in Magnetic Resonance: From Nanoscale Resolution to Hyperpolarised MRI**
» Prof. Martin Plenio

3:10pm **[online] - Quantum entangling living systems**
» Prof. Vlatko Vedral

3:50pm **Coffee Break**
Poster Aera

Continued from **Thursday, 23 November**

4:05pm **Group photo**
Auditorium

4:10pm **Coffee Break**
Poster Aera

4:25pm **Single-molecule Sensors and Sequencers**
Auditorium
Chaired by: Prof. Francesco DeAngelis

4:25pm **Interfacing coherent qubits with biological targets**
» Prof. Peter Maurer, Dr. uri zvi

4:52pm **Protein Conformational Dynamics by using Optical Nanotweezers**
» Dr. Cuifeng Ying

5:09pm **Probing photothermal unfolding and refolding of single proteins using plasmon-enhanced fluorescence**
» Ms. Martina Russo, Mr. Roy Teeuwen, Mrs. Marloes Pennings, Mr. Sjoerd Nooteboom, Prof. Peter Zijlstra, Dr. Lorenzo Albertazzi, Mr. Luc Brunsveld

4:25pm **Micro/Nanofluidics/Chemical control at the Nanoscale**
Room 607
Chaired by: Prof. Peter Zijlstra

4:25pm **Direct identification of single amino acids in nanopores**
» Prof. Jiandong Feng

4:42pm **Monocrystalline Gold Double Wire Gratings: An Evolutionary Algorithm-Optimized Platform for Innovative SERS Sensing**
» Mr. Amro Sweedan, Dr. Mariela Pavan, Mr. Enno Schatz, Dr. Henriette Maaß, Ms. Ashageru Tsega, Dr. Vered Tzin, Dr. Katja Höflich, Mr. Paul Mörk, Dr. Thorsten Feichtner, Dr. Muhammad Bashouti

4:59pm **Exploring nanopore squeezing for rapid mechanical characterization of DNA origami virus-like nanoparticles**
» Dr. Kun Li, Mr. Arjav Shah, Prof. Patrick Doyle, Prof. Slaven Garaj

4:25pm **Single-Molecule Spectroscopy, Imaging, and Forces**
Room 608
Chaired by: Koji Masuda

4:25pm **Event-based vision sensor unleashes unforeseen potential for super-resolution fluorescence imaging**
» Dr. Clément Cabriel, Dr. Tual Monfort, Dr. Christian Specht, Prof. Ignacio Izeddin

4:42pm **Sensing the nanoscale dynamics and dimensionality of complex environments by 3D localization microscopy of carbon nanotubes in the SWIR domain.**
» Mr. Quentin Gresil, Dr. Somen Nandi, Dr. Laurent Cognet

4:59pm **Quantum optics meets microscopy – An ultra-sensitive resonator microscope for nano- and life sciences**
» Dr. Florian Steiner, Dr. Rute Fabiana Martins Fernandes, Ms. Ines Amersdorffer, Dr. Thomas Hümmer

5:25pm **Plenary Session**
Auditorium
Chaired by: Prof. Martin Plenio

5:25pm **Quantum Biology: past, current and future perspectives**
» Prof. Jim Al-Khalili

6:10pm **Panel discussion on Unveiling of Quantum Secrets in Biology, Opportunities and Challenges**
Auditorium

7:15pm **Drinks & Tapas**
Club 23

Friday, 24 November

8:30am **Registration**
Welcome Desk

9am **Plenary Session**
Auditorium
Chaired by: Dr. Maria Manosas

9am **Using nanopores to watch enzymes at work**
» Prof. Jens Gundlach

9:40am **Fluorescence-based single-molecule DNA sensors**
» Prof. Achillefs Kapanidis

10:20am **Coffee Break**
Poster Aera

10:50am **Molecular Machines, Synthetic Biology, and DNA Origami**
Auditorium
Chaired by: Dr. Eugene Kim

10:50am **Structurally adaptable DNA origami nanoactuators as size-selective nanopore sensors**
» Dr. Sabina Caneva, Dr. Ze Yu

11:07am **Optimizing single molecule barcodes for the NP-FET**
» Mr. Aderik Voorspoels, Ms. Juliette Gevers, Dr. Sybren Santermans, Dr. Nihat Akkan, Dr. Koen Martens, Dr. Kherim Willems, Prof. Anne S Verhulst, Prof. Pol Van Dorpe

11:24am **[online] - Massively multiplexed single-molecule fluorescence microscopy**
» Prof. Sebastian Deindl

11:41am **Revealing the dynamics of Pif1 helicase when it collides with a G-quadruplex embedded in dsDNA using single-molecule assays.**
» Dr. Jessica Valle Orero, Dr. Martin Rieu, Dr. Phong Lan Thao Tran, Dr. Alexandra Joubert, Dr. saurabh Raj, Prof. Jean-Francois Allemand, Prof. Vincent Croquette, Prof. Jean-Baptiste Boule

10:50am **Single-molecule Sensors and Sequencers**
Room 607
Chaired by: Dr. uri zvi

10:50am **SensPIV - Imaging flow fields and chemical gradients using nanoparticle based sensors**
» Prof. Klaus Koren

11:07am **Single-molecule plasmonic biosensor for continuous sensing**
» Mr. Livio Oliveira de Miranda, Prof. Peter Zijlstra, Dr. Mathias Dolci, Dr. Khulan Sergelen

11:24am **Development of single-atom (Ba2+) sensors for NEXT experiment**
» Prof. Zoraida Freixa

11:41am **Light-guiding nanowires for single molecule detection with TIRF-level sensitivity**
» Mx. Rubina Davtyan, Prof. Nicklas Anttu, Ms. Julia Valderas Gutiérrez, Prof. Fredrik Höök, Prof. Heiner Linke

10:50am **Micro/Nanofluidics/Chemical control at the Nanoscale**
Room 608

10:50am **Probing the Thermal Unfolding and Refolding Trajectory of Single Calmodulin Proteins using Plasmonic Optical Tweezers**
» Ms. Edona Karakaci, Dr. Cuifeng Ying, Dr. Esteban Bermundez Urenia, Prof. Reuven Gordon, Prof. Michael Mayer

11:07am **Cavity-enhanced ultrafast sensing of single nanosystems**
» Mr. Shalom Palkhivala, Dr. Larissa Kohler, Prof. David Hunger

11:24am **Nanofluidic Scattering Spectroscopy**
» Mr. Björn Altenburger, Prof. Christoph Langhammer

Continued from **Friday, 24 November**

11:41am	**High-throughput nanoplasmonic microarray for spatiotemporal-resolved single-cell secretion monitoring** » Dr. Yen-Cheng Liu, Mr. Saeid Ansaryan, Dr. Xiaokang Li, Dr. Eduardo R. Arvelo, Ms. Augoustina Maria Economou, Dr. Christiane Sigrid Eberhardt, Prof. Camilla Jandus, Prof. Hatice Altug
12pm	**Lunch Break** *Partners Restaurants*
1:30pm	**Plenary Session** *Auditorium* Chaired by: Prof. Frank Vollmer
1:30pm	**Scaning Ion Conductance Spectroscopy** » Prof. Aleksandra Radenovic
2:10pm	**Label-free direct detection and sizing of single proteins and bioparticles** » Prof. Vahid Sandoghdar
2:50pm	**Closing Session** *Auditorium*