

TUESDAY, SEPTEMBER 27TH, 2022

Plenary Session 4 – GBM Session		Audimax
08:30-10:30	Chair: Claus Seidel, Düsseldorf, GER	
08:30-09:00	T 33 Philip Tinnefeld , München, GER <i>Single-molecule biophysics and biosensing with DNA origami devices and graphene</i>	
09:00-09:30	T 34 Jonas Ries , Heidelberg, GER <i>Superresolution microscopy for structural cell biology</i>	
09:30-10:00	T 35 Sophie Brasselet , Marseille, FRA <i>Imaging of proteins' organization in 3D using single molecule orientation and localization microscopy (SMOLM)</i>	
10:00-10:30	T 36 Alf Honigmann , Dresden, GER <i>Structure and assembly of epithelial tight junctions: super-resolution and reconstitution</i>	
10:30-11:00	Coffee Break	
Parallel Session 3A – Imaging, Microscopy, Single Molecule Biophysics I		A 701
11:00-12:00	Chair: Jacob Piehler, Osnabrück, GER	
11:00-11:15	T 37 Iliya Stoev , Dresden, GER <i>Highly sensitive force measurements enabled by a new optofluidic particle trap</i>	
11:15-11:30	T 38 Oleksii Nevskiy , Göttingen, GER <i>Super-resolution microscopy with metal-induced energy transfer</i>	
11:30-11:45	T 39 Charlotta Lorenz , Göttingen, GER <i>Mechanical properties of keratin and vimentin intermediate filaments</i>	
11:45-12:00	T 40 Andrea Pruccoli , Konstanz, GER <i>Electronically enhanced Stimulated Raman Scattering microscopy of visible dyes</i>	
Parallel Session 3B – Computational Biophysics II		A 703
11:00-12:00	Chair: Rainer Böckmann, Erlangen, GER	
11:00-11:15	T 41 Roberto Covino , Frankfurt, GER <i>Extracting free energy and dynamics from incomplete single molecule measurements with simulation based inference</i>	
11:15-11:30	T 42 Vania Calandrini , Jülich, GER <i>Subdiffusive-Brownian crossover in membrane systems: a generalized Langevin equation-based approach</i>	
11:30-11:45	T 43 Christoph Allolio , Prague, CZ <i>Multiscale modeling of specific interactions on biomembranes</i>	
11:45-12:00	T 44 Leonie Chatzimagas , Saarbrücken, GER <i>Simulation of liquid jet explosions and shock waves induced by X-ray free-electron lasers</i>	
Parallel Session 3C – Protein Structure, Dynamics, Function		A 704
11:00-12:00	Chair: Indra Schroeder, Jena, GER	
11:00-11:15	T 45 Jochen Balbach , Halle, GER <i>Macromolecular crowding induces a binding competent transient structure in intrinsically disordered Gab1</i>	
11:15-11:30	T 46 Olga Mayans , Konstanz, GER <i>Stretch-induced unfolding of titin-like kinases as mechanosignalling mechanism in vivo</i>	
11:30-11:45	T 47 David Scheerer , Rehovot, ISR <i>Substrate inhibition of an enzyme: are ultrafast motions affecting catalytic activity?</i>	
11:45-12:00	T 48 Sven Stripp , Berlin, GER <i>Made in the dark – infrared difference spectroscopy for the analysis of gas-processing metalloenzymes</i>	
12:00-13:00	Lunch Break	
Plenary Session 5		Audimax
13:00-14:30	Chair: Thomas Gutschmann, Borstel, GER	
13:00-13:30	T 49 Nina Morgner , Frankfurt, GER <i>Wanted and unwanted assemblies of biomolecular complexes – what can we learn with native mass spectrometry?</i>	
13:30-14:00	T 50 Peter Hamm , Zürich, CH <i>Using azobenzene photocontrol to set proteins in motion</i>	
14:00-14:30	T 51 Marloes Groot , Amsterdam, NL <i>Translation of higher harmonic generation microscopy into the clinic for tumor tissue assessment</i>	
14:30-15:00	Coffee Break	
Poster Session 2		Poster Areas
15:00-16:30		
Industry Talks		A 701
15:00-16:30		
Parallel Session 4A – Membrane Biophysics II		A 701
16:30-17:30	Chair: Jochen Hub, Saarbücken, GER	
16:30-16:45	T 52 Andreas Janshoff , Göttingen, GER <i>Cortex mechanics – the impact of actin architecture and the plasmamembrane</i>	
16:45-17:00	T 53 Daniel Mann , Jülich, GER <i>Macromolecular organization of atg18 oligomers</i>	
17:00-17:15	T 54 Oliva Saldanha , Konstanz, GER <i>Calcium induced vesicular interactions studied with ATR- FTIR spectroscopy</i>	
17:15-17:30	T 55 Larissa Socrier , Göttingen, GER <i>Optical manipulation of Gb3 enriched lipid domains: impact on Shiga Toxin B binding</i>	
Parallel Session 4B – Cell Biophysics		A 703
16:30-17:30	Chair: Maria Hörnke, Freiburg, GER	
16:30-16:45	T 56 Andra Schromm , Borstel, GER <i>Bacterial outer membrane vesicles (OMVs): Dissecting the delivery process to host cells</i>	
16:45-17:00	T 57 Malgorzata Lekka , Krakow, PL <i>Understanding a link between the biomechanics and invasiveness of bladder cancer cells</i>	
17:00-17:15	T 58 Johannes Rheinlaender , Tübingen, GER <i>Measuring the cortical tension of living cells using the scanning ion conductance microscope</i>	
17:15-17:30	T 59 Karim Fahmy , Dresden, GER <i>Conserved patterns of heat release from cultured microorganisms reveal simple growth-metabolism relations</i>	
Parallel Session 4C – Protein Folding, Aggregation, Disease		A 704
16:30-17:30	Chair: Henrike M. Müller-Werkmeister, Potsdam, GER	
16:30-16:45	T 60 Jörg Fitter , Aachen, GER <i>Mapping multiple distances in a multidomain protein for the identification of folding intermediates</i>	
16:45-17:00	T 61 Miloš Ivanović , Zürich, CH <i>Protein dynamics in a biomolecular condensate</i>	
17:00-17:15	T 62 Kay Saalwächter , Halle, GER <i>Gel formation of alpha crystallin solutions</i>	
17:15-17:30	T 63 Christian Nehls , Borstel, GER <i>Visualization and force spectroscopy of mineral dust associated microbes unravelling bacterial long-distance propagation strategy</i>	
Young Investigator Award		Audimax
17:40-18:10	Chair: Hans-Joachim Galla, Münster, GER	
17:40-18:10	T 64 Georg Krainer , University of Cambridge, UK <i>Next generation microfluidic approaches for protein biophysics</i>	
18:15-18:30	DGfB Section Meetings	
	Section I – Molecular Biophysics	A 702
	Section II – Membrane Biophysics	A 703
	Section III – Cellular Biophysics	A 704
18:30-19:30	DGfB General Assembly	A 701
TBA	Guided City Tours	