



Day 3. 20th November (Wednesday) SIMCO day

Time	Room A (LH 21)	Room B (LH 22)	Room C (LH 32)	Room D (LH 33)
Session 3.1 09:00 - 10:30	<p>Chair: Sobhan Sen, <i>JNU, New Delhi</i> Plenary Talk 4: Taekjip Ha, <i>Boston Children's Hospital and Harvard Medical School</i>, Probing Mechanical Selection through Accurate Prediction of 3D DNA Mechanics Mihir Chowdhury Student Fellowship Talk 2: Aisworika Mohanty, <i>TIFR, Mumbai</i>, Modulating Singlet Fission in NDI Dimers by Tuning Inter-chromophoric Electronic Coupling R. S. Daryan Student Fellowship Talk: Vivek Nagendra Bhat, <i>IISc Bangalore</i>: Rapid Scan White Light Two-Dimensional Electronic Spectroscopy with 100kHz Shot-to-Shot Detection Technical talk 3: <i>SIMCO</i>: Thomas Klos, <i>TOPTICA Photonics</i>: Fiber Lasers for FLIM Applications Prof. B. Nag Auditorium</p>			
10:30 - 11:00	Tea Break, Ground Floor Cafeteria			
	Chair: Shobhna Kapoor <i>IIT Bombay</i>	Chair: Sandip Kar <i>IIT Bombay</i>	Chair: Tapanendu Kundu <i>IIT Bombay</i>	Chair: Kanchan Garai <i>TIFR Hyderabad</i>
Session 3.2 11:00 -13:00	Yraima Cordeiro <i>Federal University of Rio de Janeiro, Brazil</i> Heterotypic Phase Transitions of the Prion Protein Modulated by Copper ions: A Biophysical Approach	Christopher Xu <i>Cornell University</i> Pushing the Limits of Multiphoton Imaging in Living Systems	Debabrata Goswami <i>Indian Institute of Technology Kanpur</i> Decoding Structure, Dynamics, and Synergism in Solutions Through Femtosecond Laser Spectroscopy	Jelle Hendrix <i>Biomedical Research Institute, BIOMED, Belgium</i> Structure and Dynamics of Tau Protein Across Liquid Phases
	Nibedita Pal <i>IISER Tirupati</i> Interaction of Human BRAC1 Protein with Holliday Junction: Preference for an Open X-like conformation	Nirmalya Ghosh <i>IISER Kolkata</i> Polarized optical pathways towards next generation optical techniques for biomedical imaging and diagnosis	Jahur A. Mondal <i>BARC, Mumbai</i> Structural and Orientational Transformations of Water at Air/Water-Polyethylene Glycol Polymer Interface	Oleg Krichevsky <i>Ben-Gurion University of the Negev, Israel</i> T cell communication through cytokines: simple physics in a complex system
	Umakanta Tripathy <i>IIT ISM Dhanbad</i> Introducing a Novel Optical Device to Study Protein Aggregation in Real-time	Maithreyi Narasimha <i>TIFR Mumbai</i> Shaping and Moving Tissues during Morphogenesis: Cytoskeletal Organisation Entrain the Morphodynamic, Mechanical and Material Properties of Cell Cohorts	Rahul Gera <i>RIE Mysore, NCERT</i> Understanding Aqueous Interfaces Using Vibrational Sum-Frequency Generation Spectroscopy	Rahul Roy <i>IISc. Bangalore</i> Design Principles of Pore Forming Toxins: Learnings from Cytolysin A
	Sobhan Sen <i>JNU, New Delhi</i> Probing Ligand Binding Kinetics with G-Quadruplex DNA using Fluorescence Correlation Spectroscopy and MD Simulations	Anjana Badrinarayanan <i>NCBS-TIFR</i> Searching for Homology	Luuk van Wilderen <i>Johann Wolfgang Goethe-Universität</i> External Manipulation of the Absorption Spectrum of a Photoreceptor	Dibyendu Kumar Das <i>IIT Kanpur</i> Single Molecule Imaging of Coronavirus Spike Trimers Conformational Dynamics during Membrane Fusion for Entry
13:00 - 14:00	Lunch, Second Floor Foyer & Canopy Area			
	Fluorescence Methods (FM)	Probes in Biology (PB)	Ultrafast Spectroscopy (UFS)	Single Molecule Spectroscopy (SMS)
	Super Resolution Methods (SR)	Bio-imaging in Cells (BiC)	SERS & Raman (S&R)	Theory & Modelling (T&M)



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	Chair: Ashutosh Kumar <i>IIT Bombay</i>	Chair: Rajarshi Chakrabarti <i>IIT Bombay</i>	Chair: E. Siva Subramaiaam Iyer <i>IIT Goa</i>	Chair: Padmaja Prasad Mishra <i>Saha Institute of Nuclear Physics</i>
Session 3.3 14:00 - 16:00	Tatini Rakshit <i>Shiv Nadar University</i> Probing Cancer Biomarkers with Biophysical Tools	Roop Mallik <i>IIT Bombay</i> Selective Targeting of Kinesin on Lipid Droplets Reduces Serum Triglycerides	Pratik Sen <i>IIT Kanpur</i> Critical Role of Associated Water in Protein Stability and Activity	Nils G. Walter <i>University of Michigan</i> Single Molecules Come into Focus: From Bacterial Riboswitches to Mammalian Cellular Phase Separation
	Elizabeth Hinde <i>University of Melbourne</i> Pair Correlation Microscopy of Heterotrimeric Transcription Factor Transport	A. Sri Rama Koti <i>TIFR, Mumbai</i> Liquid-Liquid Phase Separation (LLPS) of Small Ubiquitin-related Modifier (SUMO1) and its Multimers	Manik Pradhan <i>S.N. Bose National Centre for Basic Sciences</i> Breath Analysis in Disease Detection through Spectroscopic Signatures	Abhishek Mazumder <i>CSIR-IICB</i> Investigating Mechanism of Coupled Molecular Machines in Live Cells using Single Particle Tracking FRET (spt-FRET)
	Ammasi Periasamy <i>University of Virginia</i> Investigation of Mitochondrial Dysfunction Related to Cancer and Alzheimer Disease: Two-photon FLIRR Microscopy	Ayan Banerjee <i>IISER Kolkata</i> Microbubble Lithography: Writing Mesoscopic Architectures of 'Everything Mesoscopic' using Laser-nucleated and Manipulated Microbubbles	Sharmishta Sinha <i>INST Mohali</i> Mutants, Molecules, and Mayhem: Bile Acids Fuel p53 R273 Aggregation and Chemoresistance	Don C. Lamb <i>Ludwigs-Maximilians-Universität München, Germany</i> Deep-Learning and the Tunability of DNA Origamis
	Takuhiro Otsu <i>Saitama University</i> Fluorescence Lifetime Correlation Analyses Reveal Leaflet-specific Lipid Diffusion in a Lipid Bilayer	Subhashis Haldar <i>SNBNCBS, Kolkata</i> Force-Driven Transformation of Tunnel-Associated Chaperones: Unveiling a Strain-Energy-Based Mechanism for Enhanced Protein Folding	Neha Jain <i>IIT Jodhpur</i> Deciphering the Modulation of α -Synuclein Amyloid Assembly by β_2 -Microglobulin Conformers	Dibyendu Kumar Sasmal <i>IIT Jodhpur</i> Single Molecule Conformational Dynamics of DNA Holliday Junction and T-cell Receptor
16:00 - 18:00	Poster Session-2 FCS + OWLS with Tea/Coffee, Ground Floor			
Session 3.4 18:00 - 19:15	Chair: Debanjan Bhowmik, <i>Rajiv Gandhi Centre for Biotechnology, Kerala</i> Plenary Talk 5: Jörg Enderlein, <i>Georg August University Göttingen, Germany</i> Image-Scanning Single-Molecule Localization Microscopy Watt Webb Student Fellowship Talk 1: Deepika Sardana, <i>JNU New Delhi, and EPFL Switzerland</i> : DNA's Temporal Voyage Through the Currents of Biological Water Technical Talk 4: SIMCO, Mathias Bayer, <i>Picoquant, Germany</i> : Single Molecule Microscopy applications accessible as never before. Technical Talk 5: SIMCO, Andrea Giudice, <i>MD-Micro Photon Devices</i> : SPAD detectors for Single-photon Counting Prof. B. Nag Auditorium			
19:15 - 21:30	Evaluation of Shortlisted Posters, Ground Floor			
20:00 - 22:00	Gala Dinner, Second Floor Foyer & Canopy Area (Hosted by SIMCO)			
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