

**10TH INTERNATIONAL SOFT MATTER CONFERENCE
(ISMC 2026)**

Schedule of Oral Presentations

Schedule of Plenary Presentations

Presenting Author	Presenting Author Institution	Title of the talk
Day 1 (Monday-25/5/26) Afternoon Venue: Auditorium, Time: 3:00 pm to 4:00 pm		
Chair: Ignacio Pagonabarraga		
Guruswamy Kumaraswamy	Indian Institute of Technology Bombay	Fragmentation of plastics to form micro and nanoplastics
Day 1 (Monday-25/5/26) Afternoon Venue: Auditorium, Time: 4:15 pm to 5:15 pm		
Chair: Ignacio Pagonabarraga		
L. Mahadevan	Harvard University, USA	Some inverse problems in soft and active matter
Day 2 (Tuesday-26/5/26) Morning Venue: Auditorium, Time: 9:30 am to 10:30 am		
Chair: Ravi Prakash Jagadeeshan		
Gareth McKinley	Massachusetts Institute of Technology, USA	Rheological Universal Differential Equations: Scientific Machine Learning the genetic fingerprint (or Rhe-ome) of complex fluids
Day 2 (Tuesday-26/5/26) Morning Venue: Auditorium, Time: 11:00 am to 12:00 noon		
Chair: Ravi Prakash Jagadeeshan		
Emanuela Zaccarelli	CNR Institute of Complex Systems and University of Rome, Italy	In silico microgels
Day 3 (Wednesday-27/5/26) Morning Venue: Auditorium, Time: 9:30 am to 10:30 am		
Chair: Srikanth Sastry		
Andrea J. Liu	University of Pennsylvania, USA	Tunable Matter
Day 3 (Wednesday-27/5/26) Morning Venue: Auditorium, Time: 11:00 am to 12:00 noon		
Chair: Srikanth Sastry		
Madan Rao	NCBS-TIFR, Bangalore, India	Renewable Living Matter - anomalous elasticity, force patterning and excitability
Day 4 (Thursday-28/5/26) Morning Venue: Auditorium, Time: 9:30 am to 10:30 am		
Chair: Ryoichi Yamamoto		
Takuji Ishikawa	Tohoku University, Japan	Ciliary fluid dynamics of swimming, feeding, pumping, and sensing
Day 4 (Thursday-28/5/26) Morning Venue: Auditorium, Time: 11:00 am to 12:00 noon		
Chair: Ryoichi Yamamoto		
Amy Q. Shen	Okinawa Institute of Science and Technology Graduate University, Japan	Soft matter under heterogeneous deformation: stretching, alignment, and instability

Schedule of Keynote and Contributed Presentations - Active and Biological Matter (AcM+BM)

Presenting Author	Presenting Author Institution	Title of the talk
AcM+BM-1 - Day 2 (Tuesday-26/5/26) Venue: DLT 7, Time: 2:30 pm to 4:15 pm		
Chair: Namrata Gundiah		
Elsen Tjhung	The Open University	Control of Active Field Theories at Minimal Dissipation
Shivprasad Patil	Indian Institute of Science Education and Research	Viscoelastic Response of Folded Protein Chains under Tension: Insights from Titin and Ubiquitin
Jure Dobnikar	University of Ljubljana	The role of memory and temporal scales in activity induced interactions
Ignacio Pagonabarraga	University of Barcelona	Shaping active matter: Symmetry, confinement, and effective interactions
Poulomi Sadhukhan	Bennett University, India	A Coarse-Grained Model for Unfolding-Driven Fibrin Mechanics
Raghunath Chelakkot	Indian Institute of Technology Bombay	Clusters, loops, lanes, and flocks: non equilibrium patterns by chemically communicating active agents.
Rumi De	Indian Institute of Science Education and Research Kolkata	Oscillating Cell Shapes: Patterns, Mechanisms, and Dynamics
AcM+BM-2 - Day 2 (Tuesday-26/5/26) Venue: DLT 7, Time: 4:45 pm to 6:30 pm		
Chair: Bidisha Sinha		
Samir K Maji	IIT Bombay	Disease-associated and functional amyloid formation through phase separation
Eric BUHLER	University Paris Cité	Self-propulsion and Dynamic Clustering of Photo-active Nano-sized Particles in a Brownian Environment Probed by Heterodyne Dynamic Light Scattering
Gunjan Agarwal	The Ohio State University, Columbus	Two-Particle micro-rheology of collagen gels
Mithun Kumar Mitra	Indian Institute of Technology (IIT) Bombay	Chromatin loops provide a structural basis for molecular memory
Gaurav Chauhan	Indian Institute of Technology Indore	Phase separation and viscoelastic properties of chemically active biomacromolecules
Karina Kwapiszewska	Institute of Physical Chemistry, Polish Academy of Sciences	How Cells Control Nanoscale Transport: Stability in Physiology, Disruption in Stress
AcM+BM-3 - Day 3 (Wednesday-27/5/26) Venue: DLT 7, Time: 2:30 pm to 4:15 pm		
Chair: Abhishek Choudhuri		
Tanniemola Liverpool	University of Bristol	The soft matter physics of wound healing
Gerald Fuller	Stanford University	Viscoelasticity of airway mucus and ciliary clearance of airway epithelia by live-cell rheometry
Alexander Chertovich	Semenov Federal Research Center for Chemical Physics	Motility-Induced Organization of Polymers from Active Monomer Units
Kumari Neelam Verma	Motilal Nehru National Institute of Technology Allahabad	Mechanical Regulation of Cancer Invasion by the Cell Surface Glycocalyx
Shambojit Roy	Indian Institute of Technology Guwahati	3D bulk gels and microfluidics: in vitro pancreatic tumor models for studying T cell migration.
Balakrishnan Ashok	International Institute of Information Technology Bangalore (IIIT-B)	Understanding the nonlinear behaviour of living tissue: mechanistic models & dynamics
AcM+BM-4 - Day 4 (Thursday-28/5/26) Venue: DLT 7, Time: 2:30 pm to 4:15 pm		
Chair: Madan Rao		
Roberto Cerbino	Universität Wien, Austria	Non-universality of jamming in cellular monolayers
Snigdha Thakur	IISER Bhopal	Role of the motor density and distribution on polar active polymers
Bibhu Ranjan Sarangi	IIT Palakkad	Unravelling cellular mechanosensing on cell-scale stiffness gradients
Pramod Pullarkat	Raman Research Institute, Bangalore, India	Differential contributions of microtubules and spectrins to axonal mechanics
Jiaxing Yuan	The Hong Kong University of Science and Technology (Guangzhou)	Wetting-mediated extracellular phase separation drives cell adhesion
Brato Chakrabarti	International Center for Theoretical Sciences, TIFR	The physical consequence of sperm gigantism

Alfredo Sciortino	CEA Grenoble / ESPCI Paris	Reconstituting active and dynamic steady-states of actin-based cellular architectures
AcM+BM-5 - Day 4 (Thursday-28/5/26) Venue: DLT 7, Time: 4:45 pm to 6:30 pm		
Chair: Gerald Fuller		
Marisol Ripoll	Forschungszentrum Jülich	The life of a polar active polymer: progressive deformation, stretching, collapsing and knotting
Anil Kumar Dasanna	Indian Institute of Science Education and Research-Mohali	Emergent collective behavior of chiral active particles with polar alignment and visual perception
Raj Kumar Manna	Indian Institute of Technology Kharagpur	Activity-driven dynamic smectic order formation in deformable cell monolayers
Diogo Pinto	University of Lisbon	Spontaneous Hole Formation in Cell Monolayers Emerges from Collective Cell Motion
Song-Chuan Zhao	Kyushu University	Active-bath mediated forces between colloidal particles: direct force measurements and dynamical signatures
Sumantra Sarkar	Department of Physics, IISc Bangalore	Glassy dynamics in epithelial tissues emerges through crowding and mechanochemical feedback
AcM+BM-6 - Day 5 (Friday-29/5/26) Venue: DLT 7, Time: 9:00 am to 10:30 am		
Chair: Shivaprasad Patil		
Sivasurender Chandran	Indian Institute of Technology Kanpur	Hydrodynamic Signatures in Non-monotonic Lagrangian Dynamics of Bacterial Suspensions
Praneet Prakash	Indian Institute of Technology Kanpur	Dynamics of an Algae-Bacteria Inhomogeneous Active Suspension
Nishant Narayanasamy	National Center for Biological Sciences	Metabolically driven flows enable exponential growth in macroscopic multicellular yeast
Ryoichi Yamamoto	Kyoto University	How to propel efficiently in viscoelastic media
Etienne Loiseau	CNRS	Active Mucus-Cilia Hydrodynamic Coupling and Interfacial Rheology Govern Airway Clearance
kazuaki furukawa	Meisei University	Many-Body Systems by Self-propelled Ion Gels
AcM+BM-7 - Day 5 (Friday-29/5/26) Venue: DLT 7, Time: 11:00 am to 12:15 pm		
Chair: Pramod Pullarkat		
DILEEP MAMPALLIL	IISER TIRUPATI	Multi-Functional Microparticles by Templating Phase Nuclei in Evaporative Liquid-Liquid Phase Separation
Raushan Kant	Institute of Science and Technology Austria	Edge states, pairing, and sorting of motile chiral particles
Nikita Olekhno	ITMO University	Local jam formation in swarms of vibration-driven robots moving along a track with a bottleneck
Abhishek Chaudhuri	IISER Mohali	Motility-Gated Chemical Deposition Drives Re-entrant Collapse and Network Formation in Active Walkers
Vladimir Rudyak	Tel Aviv University	Does chemotaxis enhance target search by active Brownian particles?
Rajdip Bandyopadhyaya	Indian Institute of Technology Bombay	Microfluidic Insight of Nanoparticle's Role in Bacterial Remediation of Water: Materials to Devices

Schedule of Keynote and Contributed Presentations - Arrested Matter (AM)

Presenting Author	Presenting Author Institution	Title of the talk
AM-1 - Day 2 (Tuesday-26/5/26) Venue: DLT 6, Time: 2:30 pm to 4:15 pm		
Chair: Amelia Liu		
Ophelia K Tsui	The Hong Kong University of Science and Technology	Influence of Equilibrium and Nonequilibrium Effects on Surface Mobility in Polymer Glasses
Chetan Yadav	Department of Physics, University of Massachusetts, Amherst, Massachusetts 01003, USA	How is active glass more heterogeneous?
Sayantan Majumdar	RRI	Trainable amorphous matter: tuning yielding by mechanical annealing
Satyavrata Samavedi	Department of Chemical Engineering, Indian Institute of Technology Hyderabad, India	Stabilization of co-amorphous mixtures via Tg elevation driven by molecular interactions
Nidhi Pashine	Syracuse University	Granular materials from soft inflatable particles
Kamlesh Mishra	Jawaharlal Nehru Centre For Advanced Scientific Research, Bengaluru, India	Two-step Devitrification of a Soft Colloidal Glass
AM-2 - Day 4 (Thursday-28/5/26) Venue: DLT 6, Time: 4:45 pm to 6:45 pm		
Chair: Sarika Bhattacharyya		
Pinaki Chaudhuri	Institute of Mathematical Sciences	Squishy Amorphous Matter
Srikanth Sastry	Srikanth Sastry	Models of yielding and fatigue failure under cyclic shear deformation of glasses
Amelia Liu	Monash University	Local structural measurements of glasses from small-beam diffraction
Sucharita Niyogi	The University of Osaka	Probing Anharmonic and Heterogeneous Carrier Dynamics Across Sublattice Melting in a Minimal Model Superionic Conductor
Indrajit Tah	CSIR-Central Glass & Ceramic Research Institute	From Disorder to Discovery: Bridging Glass Physics and Machine Learning for Predictive Materials Design
Noman Hanif Barbhuiya	Indian Institute of Technology Gandhinagar	Geometrical Fingerprints of Stability in Binary Colloidal Glasses
Sonali Vasant Kawale	Raman Research Institute, Bangalore, India	Aging in Amorphous Solids under the Influence of Soft-Pinning Particles

Schedule of Keynote and Contributed Presentations - Colloids (C)

Presenting Author	Presenting Author Institution	Title of the talk
C-1 - Day 2 (Tuesday-26/5/26) Venue: DLT 9, Time: 2:30 pm to 4:15 pm		
Chair: Ranjini Bandyopadhyay		
Vinothan N. Manoharan	Harvard University	High-precision measurements of colloidal interactions using holographic microscopy
Sandipan Chattaraj	IESL-FORTH, Heraklion, Greece	Effect of hydrodynamic interactions in concentrated colloidal suspensions and gels: a comparative DPD and SD simulations study
Sulalit Bandyopadhyay	Norwegian University of Science and Technology (NTNU)	Towards Demystifying the Odyssey of Ouzo in Polymer Nanoprecipitation
SUBRAMANYAN NAMBOODIRI V	National Institute of Technology Calicut	Light-Directed Colloidal Assembly
Ranjit Mondal	IIT Hyderabad	Instabilities in Dried Colloidal Films: Role of Particle Concentration, surface charge, Substrate Wettability, and Solvent
Thongam Gomti Devi	Department of Physics, manipur University	Integrated DFT, Docking, and Molecular Dynamics investigation of Potent Biomolecular Complexes for Prostate Cancer Therapy
C-2 - Day 2 (Tuesday-26/5/26) Venue: DLT 9, Time: 4:45 pm to 6:30 pm		
Chair: Rajesh Ganapathy		
Rossana Pasquino	Università degli Studi di Napoli Federico II	Photoreactive Pluronics: Tailoring Self Assembly Through UV Induced Crosslinking
Sunita Srivastava	Indian Institute of Technology Bombay	Aggregation mechanism in DNA functionalized gold nanoparticles in multivalent and ionic liquid environment
Tommaso Papetti	Sapienza University of Rome	Effective interactions of star-like microgels
Jitendra Dhakar	IIT Kanpur	Diffusio-osmotic and phoretic transport in ordered and disordered porous media
Venkateshwar rao Dugyala	Indian Institute of science Education and Research Bhopal, Bhuri, Bhopal, Madhya Pradesh	Engineering Pickering Emulsions via Droplet Bridging by In Situ Particle Surface Modification
Saswati Pujari	Unilever	Fatty acids incorporation as a way to reinforce low solids network
C-3 - Day 4 (Thursday-28/5/26) Venue: DLT 9, Time: 2:30 pm to 4:00 pm		
Chair: Prachi Thareja		
Rajesh Ganapathy	Jawaharlal Nehru Centre for Advanced Scientific Research	Equilibrium and Non-equilibrium Melting of Colloidal Wigner Crystals on Curved Manifolds
Alessandro Simon	University of Tübingen	Machine learning approaches to classical density functional theory: Towards accurate models of liquid matter
Chandan K Mishra	IIT Gandhinagar	Ultraslow Vorticity Modes in Colloidal Fluids
Tapati Dutta	St.Xavier's College, Kolkata	Desiccation crack prevention in clay-clay composite
Manigandan Sabapathy	IIT Ropar	Fluorescently Mapped Biopolymer-Stabilized Water-in-Water Nanoemulsions for 5-Fluorouracil Encapsulation
C-4 - Day 5 (Friday-29/5/26) Venue: DLT 9, Time: 9:00 am to 10:30 am		
Chair: Dillip K Sathapathy		
Margarita Sanchez D.	Centro de Investigación en Materiales Avanzados S.C. (CIMAV Monterrey)	MICROEMULSIONS AS CONFINED REACTION MEDIA FOR THE SYNTHESIS OF METALIC NANOSTRUCTURES AND NANOMOFs
Lilian Hsiao	North Carolina State University	Soft modes in strain softening composite colloidal networks
Gerardo Campos-Villalobos	CNR-ISC and Department of Physics, Sapienza University of Rome	Linking Microscopic Many-Body Interactions to Collective Behavior in Core-Shell Microgels through Machine-Learned Potentials
UDITA UDAY GHOSH	INDIAN INSTITUTE OF TECHNOLOGY (BHU)	Morpho-dynamics of liquid cap in desiccating colloidal droplets over partially wetting substrates
C-5 - Day 5 (Friday-29/5/26) Venue: DLT 9, Time: 11:00 am to 12:30 pm		
Chair: Tapati Dutta		
Om Prakash Bamboriya	IIT Bombay	Buckling in Spray-Drying Particle Laden Droplets: Experiments
Indira Barros	Birla Institute of Technology and Science Pilani K K Birla Goa Campus India	Engineering Anisotropic Colloids: Field-Directed and DNA-Encoded Pathways for Programmable Assembly
Kedar Joshi	Indian Institute of Technology Goa	Binary Big Atoms: Structure and dynamics in binary mixture of dipolar colloids
Shunichi Saito	The University of Tokyo	Fluorescent imaging and micro-rheology measurements of structural aging in Laponite gels
Thomas Franosch	Universität Innsbruck	Beyond linear response in colloidal liquids
Arijit Bhattacharyay	IISER Pune	Thermophoresis: The role of non-Fickian diffusion current

Schedule of Keynote and Contributed Presentations - Fluid Dynamics (FD)

Presenting Author	Presenting Author Institution	Title of the talk
FD-1 - Day 3 (Wednesday-27/5/26) Venue: DLT 9, Time: 2:30 pm to 4:00 pm		
Chair: Gaurav Tomar		
Rama Govindarajan	International Centre for Theoretical Sciences, Tata Institute of Fundamental Research	Caustics and other things in particle-laden flows
Venkat Gundabala	Indian Institute of Technology Bombay	Generation of Nanoparticle-coated Functional Fibers Using Microfluidics and Their Application to Water Treatment
Gaurav Tomar	Indian Institute of Science	The Soft Mechanics of Capsules Under Flow
Harish N Dixit	IIT Hyderabad	Moving Contact Lines: Singularity, Flow Fields, Hysteresis, and Insights from Experiments and Simulations
Devranjan Samanta	IIT Ropar	Dynamics of non-Newtonian Droplets on rigid and flexible Superhydrophobic surfaces
FD-2 - Day 5 (Friday-29/5/26) Venue: DLT 6, Time: 11:00 am to 12:15 pm		
Chair: Harish Dixit		
Vatsal Sanjay	Durham University	Hydrodynamic singularities in soft matter system
Ashwin Joy	IIT Madras	An Eulerian framework to compute the topological entropy of turbulent flows
Linnea Heitmeier	Institute of Frontier Materials on Earth and in Space, German Aerospace Center (DLR)	Spectral analysis of the velocity relaxation in nanoscale channels
Samridhi Sankar Ray	International Centre for Theoretical Sciences, Tata Institute of Fundamental Research (ICTS-TIFR)	Fluctuating Interfaces in Barotropic Beta-plane Turbulence
Rupayan Jana	Indian Institute of Science	Cross-stream migration of spherical particles in shear and Poiseuille flows with viscosity gradients

Schedule of Keynote and Contributed Presentations - Interfaces, Surfaces and Membranes (ISM)

Presenting Author	Presenting Author Institution	Title of the Talk
ISM-1 - Day 2 (Tuesday-26/5/26) Venue: DLT 8, Time: 2:30 pm to 4:15 pm		
Chair: Sajal Ghosh		
Cesar Rodriguez Emmenegger	Institute for Bioengineering of Catalonia (IBEC) and Catalan Institution for Research and Advanced	Leveraging Macromolecular Topology and Random Heterogeneity to Design Non-living Predators
Ashish Kumar Thokchom	Shiv Nadar Institution of Eminence, Delhi NCR, India	A Unified Fabrication Strategy for Multifunctional Microstructures
Kartik Pondicherry	Anton Paar GmbH	Exotic Tribology of Soft Interfaces – Cartilages to Contact Lenses
Tatini Rakshit	Shiv Nadar University	Probing Cancer Biomarkers using a Biophysical Approach
Dhiraj V. Patil	Department of Mechanical, Materials, and Aerospace Engg., Indian Institute of Technology Dharwad	Vortex-dipole interaction with a droplet
Shobhna Kapoor	Indian Institute of Technology Bombay	Mycobacterial lipid remodels host cell lipid membranes to alter cytoskeleton dynamics fostering higher uptake
ISM-2 - Day 2 (Tuesday-26/5/26) Venue: DLT 8, Time: 4:45 pm to 6:30 pm		
Chair: Snigdha Thakur		
Douglas J. Durian	University of Pennsylvania, Department of Physics and Astronomy	Effective exponents for the diffusive coarsening of wet foams and analogous materials
Manos Anyfantakis	Luxembourg Institute of Science and Technology	Space marbles: a soft matter-inspired concept for investigating the mechanical properties of lunar regolith
Awaneesh Singh	IIT(BHU)	Coarsening and Interfacial Morphologies in Amphiphilic Polymer-Fluid Blends
Sutapa Roy	BITS Hyderabad	Interfacial Phenomena in Binary Fluids: From Surface Adsorption to Temperature-Driven Phase Separation
Martin Eduardo Villanueva	Universite Libre de Bruxelles	Tuning Lipid Nanotube Formation and Interactions at Biointerfaces through Bilayer Compositional Control
Giuliana Giunta	BASF	Accelerating Soft Matter Formulation: Digital and Computational Approaches at BASF
ISM-3 - Day 3 (Wednesday-27/5/26) Venue: DLT 8, Time: 2:30 pm to 4:15 pm		
Chair: César Rodriguez		
Sajal Ghosh	Shiv Nadar Institution of Eminence, Delhi NCR, India	A ferromagnetic liquid droplet: Comprehending the liquid-liquid interface
Thomas Voigtmann	German Aerospace Center DLR	How do membranes behave in microgravity?
Sriharitha Rowthu	IIT Gandhinagar	Prolonged Underwater Durability of Liquid Coated Slippery Surfaces
Jiarul Midya	IIT Bhubaneswar	Membrane-mediated interaction of biomolecular condensates at biomembranes
Tanwi Debnath	Forschungszentrum Jülich, Germany	Microgel wrapping and encapsulation at membranes
Shweta	Rajiv Gandhi Institute of Petroleum Technology, Jais	Investigation of interfacial behavior of extracted asphaltenes from bitumen precipitated in different non-polar solvents
Vahid Nasirimarekani	Max Planck Institute for Dynamics and Self-organization	Phase separation bursting and symmetry breaking inside an evaporating droplet; formation of a flower-like pattern
ISM-4 - Day 4 (Thursday-28/5/26) Venue: DLT 8, Time: 2:30 pm to 4:15 pm		
Chair: Douglas Durian		
Jaydeep Kumar Basu	Indian Institute of Science	Harnessing interfacial entropic effects in polymer grafted nanoparticle composites
Hendrik Schlicke	Leibniz IPF	Mind the Gap: Molecularly Interfaced Nanomaterials for Next-Generation Sensing
Jyoti R Seth	IIT Bombay	Dynamics of Liquid-to-Solid Transitions in Lipid Particle Stabilized Interfaces Probed by Interfacial Rheology
Omkar Suresh Deshmukh	Indian Institute of Technology Guwahati	Wettability Gradient-Driven Capillary Filling Dynamics in Tapered Microchannels
Dillip K. Satapathy	Department of Physics, IIT Madras	Hydration-Induced Structural Evolution of Intrinsically Disordered Proteins under Confinement
Balaji Iyer V S	Indian Institute of Technology Hyderabad	Structure of Macromolecular Liquids Near An Interface

Schedule of Keynote and Contributed Presentations - Liquid Crystals and Anisotropic Matter (LC&AM)

Presenting Author	Presenting Author Institution	Title of the talk
LC&AM-1 Day 2 (Tuesday-26/5/26) Venue: DLT 5, Time: 4:45 pm to 6:30 pm		
Chair: P. B. Sunil Kumar		
Ivan Smalyukh	University of Colorado Boulder	Mesoporous Metamaterials and Aerogels from Liquid Crystals for Transparent Thermal Insulation
Surajit Dhara	University of Hyderabad	Harnessing Topological Defects: Building, Moving, and Organising with Liquid Crystals
William Fall	Institut Charles Sadron, Université de Strasbourg & CNRS	Spontaneous Chiral Symmetry Breaking in Polydisperse Achiral Near-Rigid Nematogens
Soumik Das	Indian Institute of Technology Kanpur	From Order to Chaos: Biomimetic Directron Dynamics in Nematic Liquid Crystals
Mahendran Vellaichamy	Jozef Stefan Institute	Generation and control of nanosecond light by light in liquid crystal
LC&AM-2 - Day 3 (Wednesday-27/5/26) Venue: DLT 5, Time: 2:30 pm to 4:00 pm		
Chair: Surajit Dhara		
Alberto Fernandez-Nieves	University of Barcelona	Boojums, Hedgehogs, Rings and Walls – Defects in Confined Nematics
Thao (Vicky) Nguyen	Johns Hopkins University	Micromechanics of Polydomain Nematic Elastomers
Anton Lüders	University of Innsbruck	Quasi-universal thermodynamic behavior of convex-hard-body fluids
Arunkumar Bupathy	WPI-SKCM2, Hiroshima University	Knots as Particles: Machine-Learned Potentials for Interacting Topological Solitons in Liquid Crystals

Schedule of Keynote and Contributed Presentations - Polymers and Gels (PG)

Presenting Author	Presenting Author Institution	Title of the talk
PG-1 - Day 2 (Tuesday-26/5/26) Venue: DLT 5, Time: 2:30 pm to 4:15 pm		
Chair: Yogesh Joshi/Jyoti Seth		
Dimitris Vlassopoulos	FORTH and University of Crete	The role of thermal annealing on the viscoelastic properties of model polyisoprene vitrimers
Yogesh M Joshi	Indian Institute of Technology Kanpur	Evolution of Linear Viscoelasticity across the Sol-Gel Transition
Nayan Vengallur	University of Groningen, The Netherlands	Complex coacervates in complex environments
Divya Nayar	Indian Institute of Technology Delhi	Computational design of stimuli-responsive biopolymer-grafted nanoparticles for therapeutics
Takashi Taniguchi	Kyoto University	Effect of Dipeptide Terminal-End Associations on the Structural, Dynamic, and Rheological Properties of cis-1,4-Polyisoprene in Natural Rubber
PG-2 - Day 4 (Thursday-28/5/26) Venue: DLT 5, Time: 2:30 pm to 4:00 pm		
Chair: Vani Vemparala		
Murugappan Muthukumar	University of Massachusetts Amherst	Charged Macromolecules: Assembly, Dynamics, and Transport
Kirill Polovnikov	Skolkovo Institute of Science and Technology	Universal center-of-mass scaling shapes segment fluctuations and chromatin dynamics
Siew-Wan Ohl	Otto von Guericke University Magdeburg	Shear-Wave Emission from Interacting Cavitation Bubbles in Gelatin
Naoyuki Sakumichi	ZEN University	Universal speed limit for supersonic crack propagation in viscoelastic solids: An exact analytical solution
Naoya Yanagisawa	Komaba Institute for Science, Graduate School of Arts and Sciences, The University of Tokyo, Japan	Polydispersity as a control parameter for entanglement and packing in polymer solutions
PG-3 - Day 4 (Thursday-28/5/26) Venue: DLT 5, Time: 4:45 pm to 6:30 pm		
Chair: Susy Varughese		
Vani Vemparala	The Institute of Mathematical Sciences	Crowders as Architects: How Size and Attraction Reshape Polymer Collapse and Aggregation
J Ravi Prakash	Monash University	Characterizing polymer semiflexibility through structure factor and relaxation modulus measurement
Dr. V. Balachandar	Sathyabama Institute of Science and Technology	Dielectric Relaxation Studies on Poly(N-isopropylacrylamide) Microgel in a Water-Methanol Mixed Solvent System
Prateek K. Jha	IIT Roorkee	Computational Modeling and Experimental Design of Drug-Eluting Intraocular Lens for Glaucoma Treatment
Qiyuan QIU	City University of Hong Kong	Discrete Knot-Core Sizes in Semiflexible Chains under Tension
Arindam Kundagrami	IISER Kolkata	Charged polymers: Gels, Intrinsically Disordered Proteins, Kinetics, Salt Effects
PG-4 - Day 5 (Friday-29/5/26) Venue: DLT 5, Time: 9:00 am to 10:30 am		
Chair: Prateek jha		
Susy Varughese	Indian Institute of Technology Madras	Biological gels of the plant world-Mechanics of plant mucilage and physiological relevance
Ipsita Padhee	Charles University	Ion Partitioning in Weakly Ionizable Hydrogels at High Ionic Strength
Dilip Gersappe	Stony Brook University	Study of Shear-Induced Behavior of Nanocomposite Hydrogels using Molecular Dynamics Simulations
Monika Narayan Angwani	IIT Gandhinagar	Transition Matrix Monte Carlo for tracking polymer conformations in explicit solvent
Adith Varma Rama Varma	Chonnam National University, Gwangju, Republic of Korea	On-Demand Reversible Crosslinks Enabling Sustainable All-Gel Supercapacitors

Schedule of Keynote and Contributed Presentations - Rheology and Non-equilibrium Phenomena (RNP)

Presenting Author	Presenting Author Institution	Title of the talk
RNP-1 - Day 4 (Thursday-28/5/266) Venue: DLT 6, Time: 2:30 pm to 4:15 pm		
Chair: Khusboo Suman		
Debra Bernhardt	The Univeristy of Queensland	Understanding fluid flow using nonequilibrium molecular dynamics simulations
Vijayakumar Chikkadi	IISER Pune	Topological changes of local structure in dense colloidal suspensions under shear
Siddhartha Mukherjee	Department of Mechanical Engineering, Indian Institute of Technology Kanpur, Kanpur, India	Simulating turbulent polymer solutions using Brownian configuration fields
Sathish K. Sukumaran	Yamagata University	Nonlinear rheology of unentangled polymer liquids: Insights from molecular simulations
Kirill Glavatskiy	University of Newcastle, Australia	Consistent non-equilibrium thermodynamics approach for rheological processes
Michal Czerepaniak	Institute of Theoretical Physics, Faculty of Physics, University of Warsaw	FIBRed fibres: Flow-induced bending response rheometer to measure bending of hydrogel microrods
RNP-2 - Day 5 (Friday-29/5/26) Venue: DLT 6, Time: 9:00 am to 10:15 am		
Chair: Alan Jacob		
Jason Picardo	IIT Bombay	Stretching of polymers in turbulence: effect of hydrodynamic interactions
Simone Simon Napolitano	Université libre de Bruxelles (ULB)	Tiny Movements, Big Changes: when the slow Arrhenius process decides how fast soft matter relaxes
Khushboo Suman	Indian Institute of Technology Madras	Small Steps, Big Impact: Understanding the protocol-dependent variations on gelation behavior
Kiran Patruni	Gitam University, Department of Life Sciences, Food Science and Technology, Rudraram Hyderabad	Effect of pea-starch-hydrocolloids blending on pasting, linear and non-linear rheological characterization and decoding application specific functionality
Nirmalya Bachhar	Indian Institute of Science, Bengaluru	Enhanced Transport Behavior of Small Molecules in Polymer Solutions

Schedule of Keynote and Contributed Presentations - Sustainability (S)

Presenting Author	Presenting Author Institution	Title of the talk
S-1 - Day 3 (Wednesday-27/5/26) Venue: DLT 6, Time: 2:30 pm to 4:00 pm		
Chair: Vinutha H. A.		
Michael Rubinstein	Duke University	The Art of Network Design
Dr. Sachin Jadhav	Aditya Birla Science and Technology Company Pvt Ltd, Navi Mumbai	Cellulose swelling, gel formation and dissolution in Zwitterionic liquids
Prachi Thareja	IIT Gandhinagar	Chitosan Films Incorporated with Mango Leaf Quantum Dots for Packaging and Food Coatings
Sameer Rajendra Kalghatgi	Columbia University in the City of New York	Reprocessing of Semicrystalline Polymers via Directional Crystallization
Subramee Sarkar	Indian Institute of Technology Madras, Chennai	Valorization of Lignocellulose from Pistachio Shells for Bioplastic Films
S-2 - Day 5 (Friday-29/5/26) Venue: DLT 5, Time: 11:00 am to 12:15 pm		
Chair: Vinutha H. A.		
Tarak Patra	IIT Madras	Understanding and Design of Sustainable Polymers
Thrisha Alva	National Institute of Technology Karnataka	Application of Tulsi Modified Arecanut Fibre Bioplastic for Food Packaging
Ethayaraja Mani	IIT Madras	Deep eutectic solvent based 3D printable zein ink
Saientan Bag	Schrödinger India Private Limited	Accelerating Sustainable Soft Matter Discovery with Physics-Informed AI/ML
Neeraj Sharma	Indian Institute of Technology, Kanpur	Deep Eutectic Solvent-based Pickering Emulsions as a Green Platform for Biphasic Functional Materials

Schedule of Plenary Presentations

Presenting Author	Presenting Author Institution	Title of the talk
SASO-1 - Day 2 (Tuesday-26/5/26) Venue: DLT 6, Time: 4:45 pm to 6:15 pm		
Chair: Srikanth Sastry		
Dwaipayan Chakrabarti	University of Birmingham	Programming Colloidal Self-Assembly for Advanced Materials
Manas Khan	Indian Institute of Technology Kanpur	Vacancy defect delocalization dynamics in entropic crystals of Brownian squares
Mahesh K. Mahanthappa	University of Minnesota	Complexity Lurking in Plain Sight: The Ubiquity of Lyotropic Dodecagonal Quasicrystals
Abel J. Abraham	Massachusetts Institute of Technology	Tunable Active Droplet Assemblies
Nayan Chakraborty	National Centre for Biological Sciences (TIFR)	De novo Emergence of Metabolically Active Protocells
SASO-2 - Day 4 (Thursday-28/5/26) Venue: DLT 9, Time: 4:45 pm to 6:30 pm		
Chair: Indrani Chakraborty		
Corentin Coulais	University of Amsterdam	Wave coarsening drives time crystallization in active solids
Praveen Kumar Bommineni	National Institute of Technology Warangal	Entropic Trapping of Hard Spheres in Spherical Confinement
Jayati Sarkar	Indian Institute of Technology Delhi	Harnessing Dewetting Dynamics of Soft Thin Films for Nanoparticle Self-Assembly
Avisek Das	Indian Association for the Cultivation of Science, Kolkata	Dynamics of complex molecular assemblies: What can we learn from atomistic computer simulations?
Sujin B Babu	Sujin B Babu	Fractal dimensions in patchy particle irreversible aggregation
Jan Kossacki	University of Warsaw, Faculty of Physics	Oscillatory Silica Precipitation and the Origin of Agate Banding