10TH INTERNATIONAL SOFT MATTER CONFERENCE (ISMC 2026)

Active and Biological Matter (AcM+BM)

Poster contributions

Poster No.	Name of the Presenting Autho	Poster title
AcM+BM-Poster-001	Ravitheja Kandalam	The phase transition in the Vicsek model through GIni Index
AcM+BM-Poster-002	Tanya Dhama	Nonequilibrium thermodynamics of cellular maintenance and growth
AcM+BM-Poster-003	Rajeev Kapri	Unzipping of a DNA hairpin in a bath of self-propelled particles
AcM+BM-Poster-004	Satyam Pandey	The structure-dynamics feedback mechanism governs the glassy dynamics in epithelial monolayers
AcM+BM-Poster-005	PANKAJ MEGHWAL	Segregation of Chiral Active Particles: A Practical Approach
AcM+BM-Poster-006	Mano Ranjitham R	Fluid-Mediated Collective Effects in Automated Sperm Motility Analysis
AcM+BM-Poster-007	ANURADHA RAJPUT	Mass-Controlled Motility Transitions in 3D Active Flagella-like Systems
AcM+BM-Poster-008	Rohit Prodhan	Phase Separation in Ternary Polymer Solutions with Non-Reciprocal Interactions
AcM+BM-Poster-009	Ushasi Roy	Driven by Curvature — Emergent bacterial Cell Shape
AcM+BM-Poster-010	Yanglem Dimpy Devi	Hydrodynamic Memory and Non-Equilibrium Fluctuations in a Trapped Active Janus Particle
AcM+BM-Poster-011	Afi J M	Protein translocation through a 2D hybrid nanoslit
AcM+BM-Poster-012	Nitish Chhetri	Order, Correlations, and Deformation in Attractive Ring Polymer Assemblies
AcM+BM-Poster-013	Sakshi Jain	Experimental Exploration of Underdamped Active Particle Dynamics using Programmable Robots
AcM+BM-Poster-014	Charu Taneja	Active Protein Droplets as Drugs
AcM+BM-Poster-015	Renu Parashar	Collective Dynamics Of Active Particles In Confinement
AcM+BM-Poster-016	Kusum Seervi	Dynamic Landscapes: Motility-Induced Phase Separation with Birth and Death
AcM+BM-Poster-017	Bidhan Mnandal	Dynamics of Active Brownian Particles in Disordered Media
AcM+BM-Poster-018	Tanish Nimbalkar	Monovalent and Divalent Salt Effects on Intrinsically Disordered Protein Conformations
AcM+BM-Poster-019	Shreyas A. Shenoy	Interacting Active Belousov-Zhabotinsky Droplet Pair in Linear and Quadratic Flows
AcM+BM-Poster-020	Sruthi Kumar	Spheroid formation by Acoustic Manipulation
AcM+BM-Poster-021	Rahul Bag	Dynamics of the Passive and Self-Propelled Tracer Particle in Different Polymeric Environment
AcM+BM-Poster-022	Sayantan Mondal	Pattern Formation And Coarsening in Generalized AMB+ In the Presence Of Chemical Reactions
AcM+BM-Poster-023	Alexander V. Petrunin	Using synthetic active particles to reshape two-dimensional soft colloidal networks
AcM+BM-Poster-024	SURAJ KUMAR NAYAK	Chiral active particles on a sphere
AcM+BM-Poster-025	Sudipto Bagchi	Collective Nutrient Search by Chemotactic Active Agents in Two Dimensional Flows
AcM+BM-Poster-026	Indresh Yadav	Exploring Polymer Topology Using Kinetoplast DNA Networks
AcM+BM-Poster-027	Tomoka Kashiwabara	Magnetically Controlled Transition of Bacterial Turbulence and Anisotropic Transport
AcM+BM-Poster-028	Mateusz Jakielaszek	Shaping Plant Growth with Mechanical Constraints
AcM+BM-Poster-029	Bhavya Bhargava	Understanding interaction of bacteria with metallic nanoparticles by observing changes in bacterial motility
AcM+BM-Poster-030	Sourav Mondal	Rotation Induced Self Propulsion of a Vibrated Dimer
AcM+BM-Poster-031	Santosh Kumar Raut	Biaxial stretching of cells induces stress fiber growth and increased tractions
AcM+BM-Poster-032	Om Prakash	Coarse grained modeling of chromatin structure and dynamics
AcM+BM-Poster-033	Md Abdullah	Computational modeling of cell morphodynamics in three-dimensional extrusion bioprinting
AcM+BM-Poster-034	Vikas Manu	A Hybrid Particle–Continuum Model of Chromatin-Regulated Phase Separation
AcM+BM-Poster-035	Simar Randhawa	Rigidity and boundary dependent collective dynamics of C. elegans under confinement
AcM+BM-Poster-036	Sukh Veer	Biomechanics of Axons: Mechanical insights into the microtubule and actin-spectrin framework
AcM+BM-Poster-037	Thomas Williamson	Quantifying the Mechanical Properties of Biomolecular Condensates using Shape Fluctuations
AcM+BM-Poster-038	Anupam Ghosh	Modelling long range communications among cells through ECM network
AcM+BM-Poster-039	Anisha Kabir	Protein-based Nanocages for Mitigating Microgravity-induced Endothelial Oxidative Stress
AcM+BM-Poster-040	Sanbed Das	Biophysical Design Space for Cellular Self-assembly and Dynamics
AcM+BM-Poster-041	Jason Picardo	Bioluminescence in turbulence: intermittent straining lights up dinoflagellates
AcM+BM-Poster-042	Sudhanshu Singh	Trajectory Transitions of Active Droplets in Confined Channel Flows
AcM+BM-Poster-043	Uttam Tiwari	Shear-Induced Reentrant Bulk Flow in Odd Materials
AcM+BM-Poster-044	SOUMYADEEP DAS	Reentrant Yielding and Reversibility-Irreversibility Transition in Deformable Active Matter
AcM+BM-Poster-045	Shambhavi Dikshit	Theoretical Study on the role of confinement geometry, lamina affinity and active perturbation in chromatin organisation
AcM+BM-Poster-046	Puchalapalli Saveri	Bacterial dynamics in complex fluids with coupled effects of motility, viscoelasticity, and confinement
AcM+BM-Poster-047	Lokesh Malik	Living Droplets with Mesoscale Swimmers
AcM+BM-Poster-048	Dhananjay Gautam	Coexistence of Stochastic and Chaotic Dynamics underlies Bacterial Turbulence
AcM+BM-Poster-049	Suman Maji	Entropic Elasticity and Cyclic Work in a Vibrated Granular Polymer Chain
AcM+BM-Poster-050	Rahul Sinha	Entropic active particle transport in pulsating 3D geometries
AcM+BM-Poster-051	Udit Choudhury	Symmetry and Scalability in Synthetic Micro-swimmers
AcM+BM-Poster-052	Khokan Bhunia	Active Particle Suspensions in Viscoelastic Fluids Under Poiseuille Flow in a channel : A Dissipative Particle Dynamics Study
AcM+BM-Poster-053	Ruchika L. Paliwal	Light-Powered Nanomotors with External Guidance and Optical Tracking
AcM+BM-Poster-054	Sindhu M	Glassy dynamics in active epithelia emerge from an interplay of mechanochemical feedback and crowding.
AcM+BM-Poster-055	Pabitra Masanta	Dynamics of Marangoni-Driven Elliptical Janus Particles
AcM+BM-Poster-056	Alekhya Hati	Regulation of leading edge fingering by cell flux and actomyosin cables in collectively migrating fish keratocytes
AcM+BM-Poster-057	Soumyadeep Mondal	Non-Hermitian patterns in active epithelia due to mechanochemical feedback
AcM+BM-Poster-058	Ramya	Tunable mineralized soft protein-based hydrogels for studying breast cancer cell plasticity
AcM+BM-Poster-059	Komal Sharma	Nonequilibrium Structure Formation of Inertial Active Yukawa Particles in Two Dimensions under Confinement
AcM+BM-Poster-060	Rashmi Trivedi	Field-Induced Percolation in Binary Mixtures with Differential Diffusivity
AcM+BM-Poster-061	Hemlata Meena	Growth-induced stress accumulation and yielding control early-stage biofilm morphogenesis

AcM+BM-Poster-062	Shovon Swarnakar	Emergence of Coexisting Viscoelastic Phases in Protein Condensates Implicated in Neurodegeneration
AcM+BM-Poster-063	Baburao Simma	Competing effect of activity and non-inert crowding on the dynamics of self-propelled tracer particles
AcM+BM-Poster-064	Hemant Kumar	Cube-Shaped Single-Component Hematite Micromotors with Autonomous Swimming and Directional Stability
AcM+BM-Poster-065	Anastasia Molodtsova	Micelle-like Clusters in Swarms of Self-propelled Asymmetric Particles
AcM+BM-Poster-066	Saurav Gulabprasad Varma	Crowders on the model membrane increase picket-fence permeability
AcM+BM-Poster-067	Sangeeta Kumari	Dynamics and Self-Organization of Active Anisotropic Colloids
AcM+BM-Poster-068	Ritik Rajak	Analyzing Active Particle Trajectories in Non-Newtonian Fluids
AcM+BM-Poster-069	Phanindra Dewan	Emergence of glassy dynamics in epithelial tissues via interplay of mechanochemical feedback and crowding
AcM+BM-Poster-070	Vhaskar Chakraborty	Dispersion of active particles in oscillatory Poiseuille flow
AcM+BM-Poster-071	sankha satpathi	Dynamics of Active Cargo Carrying Particles
AcM+BM-Poster-072	Raju Ram	Optically Modulated Swimming and Electrically Powered Micromotors
AcM+BM-Poster-073	Ayan Maity	Phototactic Dynamics of Light-Driven Colloidal Microbots
AcM+BM-Poster-074	Dam Truyen Duc	Jamming Transition of Chiral Active Particles
AcM+BM-Poster-075	Elsa Baby	Boundary-Driven Orientational Modes of an Active Brownian Particle
AcM+BM-Poster-076	Sidharth Kumar Das	Effect of In-Plane Shear on Pattern Formation in Cell Populations
AcM+BM-Poster-077	PREETHI M	Breaking the Logarithmic Barrier: Activity-Induced Recovery of Phase Separation Dynamics in Confined Geometry
AcM+BM-Poster-078	Prithwiraj Maity	Knot Formation Drives Nonmonotonic Swelling–Collapse in Single Motor Active Polymers
AcM+BM-Poster-079	Kirti Kashyap	Viscoelasticity-Induced Transitions in Active Turbulence
AcM+BM-Poster-080	Dinesh Kashyap	A self-propelled Voronoi model of mechanochemical regulation in epithelial-mesenchymal transitions
AcM+BM-Poster-081	Pooja Joshi	Coaxial Open Microfluidic Device for Hydrodynamically Confined Subcellular Drug Delivery
AcM+BM-Poster-082	OLIVIA VINCENT	CURVATURE DEPENDENT DYNAMICS OF A BACTERIUM CONFINED IN A GIANT UNILAMELLAR VESICLE
AcM+BM-Poster-083	Chandana Mondal	Active Particles Knead Three-Dimensional Gels into Porous Structures
AcM+BM-Poster-084	Pulak Roy	Rheotactic Response of Sperm Cells in Shear Flow
AcM+BM-Poster-085	Lizelle Bernard Fernandes	Controlled Fabrication and Characterization of Cell-Laden Alginate Microparticles Generated Using Droplet Microfluidics
AcM+BM-Poster-086	Ajay Kumar Bansal	Active Segregation and the Control of Asymmetry in Living Cell Membranes
AcM+BM-Poster-087	Abhishek Sharma	A flock through a sea of elongated particles
AcM+BM-Poster-088	Shrikrishna Bhagwat	Investigation of DNA Melting Transition using Custom Built Small Amplitude Interferometer AFM
AcM+BM-Poster-089	Raj Rajiv Upadhyay	Size-Dependent Pattern Formation in Actomyosin-Inspired Active Fluids.
AcM+BM-Poster-090	Bibaswan Ghosh	Communicating Robots Elucidate Enhanced Navigation Efficiency in Bird Flocks
AcM+BM-Poster-091	Soumyadeep Kundu	Mechano-chemistry of the cell wall drives Bacterial Morphogenesis
AcM+BM-Poster-092	ANAMIKA ROY	Scaling Laws in the morphological evolution and order-disorder transitions using TDA for active matter.
AcM+BM-Poster-093	Sushil Dubey	Mechanical stresses govern myoblast fusion and myotube growth
AcM+BM-Poster-094	Harshmeet Kaur	Confocal Imaging of Morphological Transformations of Synthetic & Plasma Membrane Vesicles
AcM+BM-Poster-095	Om Vandra	Hydrodynamics mediated organization in active-passive colloidal mixtures.
AcM+BM-Poster-096	Samuel Z Khiangte	Actin waves guide an outward movement of microclusters in the lymphocyte immunological synapse
AcM+BM-Poster-097	Tanishq Khurana	Multiscale Drug Transport in Tumor Spheroids: A Coupled Computational and Experimental Study
AcM+BM-Poster-098	Vivek Bharat Meshram	Excitability-Induced Binary Interactions in Belousov-Zhabotinsky Reaction Droplets.
AcM+BM-Poster-099	Athul Krishna P V	Thermally Activated Barrier Escape: An Approach Towards Complex Biophysical Rate Processes
AcM+BM-Poster-100	Sumit Mandal	Control of Solid–Liquid Transitions in Collective Cell Migration via the Self-Propelled Voronoi Model
AcM+BM-Poster-101	Shweta Saini	Optimum design principles for an active granular engine
AcM+BM-Poster-102	SAYAN MAITY	Unconventional Growth of Grain Boundaries in Nonequilibrium Colloidal Crystals
AcM+BM-Poster-103	Abhishek Thakur	Marangoni Flocks: Directional Collective Motion of Polar Swimmers Along a Circular Boundary
AcM+BM-Poster-104	Devadevan M M	Active Sculpting: Dynamics of an active elastic ring
AcM+BM-Poster-105	Megha Varma	Self-Propulsion of Photocatalytic Hematite Janus Particles: Implications for Directional Cargo Transport
AcM+BM-Poster-106	Purnima Jain	Instabilities and turbulence in extensile swimmer suspensions
AcM+BM-Poster-107	Kingshuk Panja	Active phase separation: role of effective hydrodynamic interactions from stalled particles
AcM+BM-Poster-108	Debarshi Mitra	Transcription-dependent biomolecular condensates mediate rrn operon colocalization in E. coli cells.
AcM+BM-Poster-109	Mayukh Saha	Study of Critical and Coarsening Phenomena in Active Matter Systems: A Numerical Renormalization Group Approach
AcM+BM-Poster-110	Pradeep	Physical Limits of Chemotactic Concentration Sensing in Ca^{2+} Signaling
AcM+BM-Poster-111	Margam Ramprasad	Motion of a microswimmer in plane Poiseuille Flow: Effect of colloidal suspension and flow rate
AcM+BM-Poster-112	Narayani Adane	Sequence-Based Prediction of DNA Cyclizability Using Machine Learning
AcM+BM-Poster-113	Partha Sarathi Mondal	Microswimmer Induced Dynamics in Active Nematics
AcM+BM-Poster-114	RAJNI KUDAWLA	Vesicle Morphologies With Controlled Membrane Charge and Solution Asymmetry
AcM+BM-Poster-115	Suresh Balanarayana	Long Term Dynamics of Bacterial Turbulence
AcM+BM-Poster-116	Smita Santram Sontakke	Emergence of run-and-tumble-like swimming in self-propelling artificial swimmers in soft microchannels
AcM+BM-Poster-117	Shubham Padhi	Mechanical Phenotype of WT and CavNull fibroblasts under ROCK, Dynamin, Myosin II inhibition

AcM+BM-Poster-118	Vidhi Jain	Active Droplet Deformation in Polymeric Liquids using Squirmer model
AcM+BM-Poster-119	MUNAZZAH FATIMA ANSARI	EPI-compounds target the IDR of AR-Tau5 involve in prostate cancer: An MD Simulation Study
AcM+BM-Poster-120	Job Joseph	Flexibility changes the game in Dense Active Suspensions
AcM+BM-Poster-121	Soumyajit Biswas	Emergence of Velocity Ordering and Its Role in Promoting Phase Transitions in Tissue Monolayer
AcM+BM-Poster-122	Vladimir V. Palyulin	Polymer Systems with Correlated Activity: Stars Versus Linear Chains
AcM+BM-Poster-123	Shreya Mishra	Quantitative Measurement of Metabolic Fluxes from Single Cells
AcM+BM-Poster-124	Surabhi Jaiswal	Critical role of the motor density and distribution on polar active polymers
AcM+BM-Poster-125	Harishwar Raman	Clustering in Active SiO2-Pt Janus Colloids
AcM+BM-Poster-126	Anastasiia Chervinskaia	Universal statistics of chromatin loops from a mean-field theory of cohesin extrusion
AcM+BM-Poster-127	SESAN NAYAK	Droplet Geometry and drying Rates Dictate Virus Persistence during environmental drying
AcM+BM-Poster-128	Snigdha Mohanty	Active Motor Dynamics in Soft Porous Media
AcM+BM-Poster-129	Biswasaran Panda	Role of the density and distribution of active monomers on the activity assisted collapse and arrest of active polymer rings
AcM+BM-Poster-130	MSai Maruti Prasoona Rani	Liquid-liquid phase separation of amyloid-β induced by polyphosphates: A coarse-grained molecular dynamics study
AcM+BM-Poster-131	Shibananda Das	Hydrodynamic effects on sequence-dependent folding of partially active polymers
AcM+BM-Poster-132	RUMA MAITY	Genetic Algorithm-Driven Training of an Intelligent Triangular Swimmer
AcM+BM-Poster-133	Mithun CHOWDHURY	Tunable Swimming Droplet Motility by Controlling the Lengthscale of Interaction of a Micellar Bath
AcM+BM-Poster-134	Mayurakshi	Dynamics of passive colloids in chiral active matter: Role of fluid
AcM+BM-Poster-135	Seema	Hydrodynamic instabilities in driven chiral suspensions
AcM+BM-Poster-136	Pallavi Dutta	From emulsions to protocells: Probing light-driven phase transitions and dynamics in prebiotic soft matter
AcM+BM-Poster-137	Sahana S	Reorientation Dynamics of Human Red Blood Cells in Optical Tweezers and its Correlation to HbA1c Levels.
AcM+BM-Poster-138	Shantanu Pradhan	Cancer cell and nuclear morphodynamics in 3D confined microenvironments
AcM+BM-Poster-139	Jaideep P. Vaidya	Directional active nematics in ratchet channels
AcM+BM-Poster-140	Ritu Raj	Disentangling the Physical Principles Underlying the Behavior of Active Chromatin Condensates
AcM+BM-Poster-141	Ashok Kumar Dasmahapatra	Defibrillation of Alzheimer's Amyloid-b Fibrils: Insight from all-atom Molecular Dynamics Simulation Study
AcM+BM-Poster-142	DEBJITA GHOSH	Deformation of Gaint Unilameller (GUVs) vesicles under osmotic pressure
AcM+BM-Poster-143	MANISHA	Insights into the hexameric structure of Type-I Mycobacterium tuberculosis Fatty Acid Synthase
AcM+BM-Poster-144	Sobiya Ashraf	Rheotaxis as a Peclet dependent Phenomenon
AcM+BM-Poster-145	Nitin Kriplani	Topological Dynamics of Active Soft Filaments
AcM+BM-Poster-146	Malik Zadah Irfan	Dynamics of thin swarming and biofilm colonies on soft viscoelastic substrates
AcM+BM-Poster-147	Krishnadev V	Chiral beating patterns and collective dynamics of nodal cilia
AcM+BM-Poster-148	Thomas Kiechl	Free chiral Hexbugs modeled as active Brownian circle swimmers
AcM+BM-Poster-149	Kshitij Raut	Sequence Encoded Mechanics of DNA Wrapping in Nucleosome
AcM+BM-Poster-150	Chandranshu Tiwari	Virial Stress in Systems of Active Particles the Presence of Translational and Rotational Inertia
AcM+BM-Poster-151	Suraj Deshmukh	Active Polymer Chain in a Viscoelastic Bath
AcM+BM-Poster-152	NAVEEN KUMAR D	Collective Dynamics and Fluid Transport in Bacterial Carpets
AcM+BM-Poster-153	Shailesh Sathe	Spatio-temporal organization of chromosomes of E.coli & C.crescentus: Elucidating underlying mechanism
AcM+BM-Poster-154	Kingkini Roychoudhury	Entropy-mediated demixing & organization of ToMo polymers in a sphere: simple models of chromosomes.
AcM+BM-Poster-155	Vikas Kumar Kushwaha	Dynamics of the passive filament in the bath of self-propelled dumbbells
AcM+BM-Poster-156	Arun Kumar	Dynamics of Deformable Vesicles
AcM+BM-Poster-157	Riya Singh	Homing through Reinforcement Learning
AcM+BM-Poster-158	Sandip Sahoo	Turbulence-induced Melting of an Active Disc: Mixing and Route to Homogenization
AcM+BM-Poster-159	Roshan Singh	Winding Dynamics and Emergent Rotational Transport of Active Particles in Lattices
AcM+BM-Poster-160	Soumitra Kolya	Aging Dynamics in Biological Glasses
AcM+BM-Poster-161	Patricia Losada Perez	Glassy Dynamics as a Predictive Framework for Lipid Exchange Across Membranes
AcM+BM-Poster-162	Karnika Singh	From Passive to Active: A Paradigm Shift in Coatings Formulation and Film Formation
AcM+BM-Poster-163	Shreerang Pande	Entropy driven organization and dynamics of ToMo polymers : Principles of chromosome organization
AcM+BM-Poster-164	Subhanker Howlader	Distribution Functions and Moments of Harmonically Trapped Inertial Run-and-Tumble Particles in a Shear-Thickening Medium
AcM+BM-Poster-165	Manisha Jhajhria	Kinetics of Phase Transitions in Chemoattractive and Chemorepulsive Nonreciprocal Mixtures
AcM+BM-Poster-166	Raghav Wahi	Structure and Aggregation of Elastin-like Polypeptides: Coarse-Grained MD Approach
AcM+BM-Poster-167	Ruby Shakya	Hydrodynamics of an axisymmetric chiral swimmer in a weakly viscoelastic medium
AcM+BM-Poster-168	Sahil Islam	Differential motility leads to intestinal organoid budding.
AcM+BM-Poster-169	Debashreeta Singha	Cancer cells trapping using microfluidic filtration
AcM+BM-Poster-170	Dr. Prasenjit Das	Morphological Transitions and Growth Kinetics in Generalized Active Model B
AcM+BM-Poster-171	Sharadhi Nagaraja	Mesoscale swimming dynamics characterization using Artemia sp.
AcM+BM-Poster-172	Suvarchalanjan Bellaganti	Lagrangian Coherent structures in Active Turbulence
AcM+BM-Poster-173	Chitrak Mondal	Poiseuille Flow Driven Transitional Dynamics of an Active Particle
AcM+BM-Poster-174	Prince Vibek Baruah	Active turbulence in dense algal suspensions
AcM+BM-Poster-175	Karnpriya Pandey	Chiral Active Swarms near a Surface
AcM+BM-Poster-176	Poulami Bag	Directed Autonomous Motion and Chiral Separation of Self Propelled Janus Particles in Convection Roll Arrays
AcM+BM-Poster-177	Anish Kumar	From Coherent motion to Disorder via QLRO in Spatial inhomogeneous Polar flock,

AcM+BM-Poster-178	Richa Mehta	The Alkane’s Architect: A Multi-Modal Analysis of Bio-Based Alkane in Hair Color Formulations
AcM+BM-Poster-179	Subhadip Biswas	Mechanistic Pathways Leading to the Maturation of Biomolecular Condensates by Amyloid Fibrils
AcM+BM-Poster-180	Dhiraj B. Puri	A Two-Dimensional Undulation of Sperm Cell in High Viscosity Settings

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Arrested Matter (AM)

Poster contributions

Poster ID	Presenting Author	Poster title
AM-Poster-001	Sanket Suresh Kumawat	Growth of Structural Lengthscale in Kob Andersen Binary Mixtures: Role of medium range order
AM-Poster-002	Padmanabha Bose	Can particle softness alone induce glassy behavior in a monodisperse system?
AM-Poster-003	Shiv Prakash Mishra	Effect of confinement on the fluidization of active solids
AM-Poster-004	ALLE PAWAN KUMAR REDDY	Structure–Property Correlations Regulating Nonlinear Viscoelasticity in Supramolecular Metallogels
AM-Poster-005	Krishna K Tiwari	Yielding behaviour of glasses at constant pressure and applied cyclic shear strain
AM-Poster-006	Himangsu Bhaumik	System size dependence of shear bands in cyclically sheared glasses
AM-Poster-007	SOURAV MUKHERJEE	Microscopic Origins of Anomalous Frictional Jamming Uncovered by Topological data Analysis
AM-Poster-008	Ratimanasee sahu	Topological defects govern plastic deformation and relaxation in1 2D colloidal glasses driven by an optical vortex
AM-Poster-009	PRATHYUSHA S NAIR	Impact of rough potentials on Noise-induced phenomena
AM-Poster-010	Mohit Sharma	Structure–dynamics correlation and its link to fragility and dynamic heterogeneity
AM-Poster-011	Noman Hanif Barbhuiya	Accelerated Ageing of Two-dimensional Binary Colloidal Glasses using Deep Learning
AM-Poster-012	NISHANTA GOSWAMI	Structure-Dynamics Interplay in Supercooled Liquids: A Coordination Number Perspective
AM-Poster-013	Devansu Chakraborty	Nature of spurious violations Stokes-Einstein-Debye relations in supercooled dumbbell binary mixture
AM-Poster-014	MANOJ RANA	Stress Relaxation Pathways in Supercooled PolymerMelts: A Mobility-Resolved Perspective
AM-Poster-015	Ehtesham Anwar	Exploring the soft pinning effect in the dynamics and the structure dynamics correlation in multicomponent supercooled liquids
AM-Poster-016	Ishu Chaudhary	Slip Dynamics in Soft Arrested Materials under Squeeze-Flow Deformation

Colloids (C)

Poster contributions

Poster ID	Presenting Author	Poster title
C-POSTER-001	Hannah-Larissa Mittermayr	Microscopy Based Approach for Zeta Potential Measurement
C-POSTER-002	Parth Shah	Exfoliation of AlB2 into Boron-rich quazi-2D nanomaterials and its application
C-POSTER-003	Sayanth Ramachandran	Nanoparticle induced contact line pinning and coffee-ring effect on hydrophobic surface
C-POSTER-004	Pinaki kundu	Quasistatic reorientation of ferromagnetic nematic colloids under slowly rotating magnetic-field
C-POSTER-005	Archita Barman	Probing Structure–Dynamics Causality in Supercooled Colloidal Liquids
C-POSTER-006	Kirti Deepak Lakhan	Exploring the Influence of Non-Ionic Surfactants on Flow Characteristics of Energy-Dense Boron Slurries with High Solid Loading
C-POSTER-007	Rutuja Amrale	A novel technique to quantify the adsorption of fine particles on coarse particles in a suspension
C-POSTER-008	Sayantan Chanda	Studying the effects of temperature and strain on dielectric relaxation in dense suspensions of thermoreversible microgels of varying particle stiffnesses
C-POSTER-009	Sri Vishnu Bharat	Effect of Particle Activity on the Dynamics of Dense Colloidal Suspensions
C-POSTER-010	Sushma	Multivalent Ion–Mediated Re-entrant Phase Behavior in Charged Silica Nanoparticle Suspensions
C-POSTER-011	Taisei Ueda	Self-Assembled Structures and Tensile Behaviors of Polymer Nanocomposites with Polymer-Grafted Nanoparticles
C-POSTER-012	Pritam K. Mohanty	Linking Structure, Susceptibility, and Dynamics in Attractive Colloidal Clusters
C-POSTER-013	ROHIT BISWAS	Competitive Role Of Dispersive And Electrostatic Interactions In the Formation Of Ordered Phases In Two-dimensional Hard Colloidal Systems
C-POSTER-014	ALOK SUNA	Investigating imbibition and spreading of colloidal suspensions in porous media
C-POSTER-015	Kuldeep Yele	Shape-Anisotropic Janus Colloids with Self-Propulsion and Magnetic Steering
C-POSTER-016	Subramee Sarkar	Small-Angle Neutron Scattering Study of Lignin: Solution Conformation and Emulsion Stabilization
C-POSTER-017	Sota Doniwa	Nanomechanical Response of Confined Pickering Droplets Stabilized by Janus and Polymer-Grafted Nanoparticles
C-POSTER-018	Syamjith KS	Influence of microgel composition and synthesis methods on the thermoresponsive behavior of pNIPAM microgels in salt solution
C-POSTER-019	Jehan Daftari	Multi-field induced assembly of anisotropic colloids into complex, tunable architectures
C-POSTER-020	Saji M	Near-wall motion of an externally torque-driven sphere in pressure-driven flow of shear-thinning fluid
C-POSTER-021	Sneha Boby	Transverse optical binding of nanoparticles in continuous wave and pulsed lasers
C-POSTER-022	Shubhasmita Rout	Evaporation-driven Self-Assembly of colloidal rods: Role of shape anisotropy and substrate effect on drying pattern
C-POSTER-023	Pooja Verma	Probing Pickering Emulsion Stability in Low-Asphaltene, Resin- and Wax-Dominated Crude Oils Using Droplet Interfacial Dynamics
C-POSTER-024	Aman Vats	Novel Algorithmic Framework for DLS Data Analysis of Highly Anisotropic CNCs
C-POSTER-025	Gerardo Campos-Villalobos	Linking Microscopic Many-Body Interactions to Collective Behavior in Core-Shell Microgels through Machine-Learned Potentials
C-POSTER-026	Roshan Kumar Maharana	Effect of particle size asymmetry on the stability of bidisperse cluster crystals
C-POSTER-027	Drishya S	Scaffold Architecture Engineering: Coupled Effects of Particle Loading and Mould Geometry
C-POSTER-028	Amrutayani Panda	Stochastic Heat Engine Driven Through a Non-linear Protocol
C-POSTER-029	Lashminarayanan K	Tailoring Colloidal Silver nanowires (Ag NWs) Dimensions for Optimization of Transparent Heaters

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Fluid Dynamics (FD)

Poster contributions

Poster No	Presenting Author	Poster Title
FD-P001	Deepak Kumar	The Effect of Corneal Topography and Mucins on Tear Film Rupture
FD-P002	Saurabh Maurya	Induced-charge electroosmosis around a half conducting cylinder
FD-P003	satyendra kumar yadav	Hydrodynamic stability of MHD fluid flow through rotating porous channel
FD-P004	SUDIP BERA	Cascade and Logic Operations in Supramolecular Fluidics
FD-P005	Manoj Mahawar	A lumped-parameter analysis of transport-regulated drug dispersion in tumor immune dynamics under combined chemo-immunotherapy: effect of dimensionless transport parameters
FD-P006	Rajarshi Chattopadhyay	Caustics of finitely dense particles
FD-P007	Vidya Jadhav	Capture Efficiency of Aerosol Particles by Highly Charged Electrospray Droplets
FD-P008	Amitesh Kumar Chaudhary	The dual role of temperature in the atomization of viscoelastic xanthan gum solutions: Competition between thermal thinning and evaporation-induced elasticity
FD-P009	Joita Chakraborty	Drop Impact Dynamics of water-in-oil microemulsions
FD-P010	Sharmistha Habarh	Enhancement of solute mixing due to the electroosmotic flow through a soft nanochannel with modulated wall potential and interfacial slippage
FD-P011	SOUMYADEEP SARKAR	Physics-Based Modeling of Spray Cooling on a Moving Substrates
FD-P012	Mahrukh Arif Mir	Hydrodynamics in an In-House Flow Cytometer via Viscoelastic Flow Focusing Through a Capillary Flow Cell
FD-P013	Md Quamar Alam	Acoustic Silence of Bubble Coalescence
FD-P014	POULAMI DUTTA	Electroosmotic solute dispersion through nanochannel
FD-P015	Siddhant Jain	Vortex Dynamics During Pinch-off of Micro-Droplets
FD-P016	E Sam Elijah	Influence of Shear-Dependent Viscosity on Droplet-Impact-Induced Splashing
FD-P017	Sanu Adhikary	Role of Elliptic Geometry in Constructal Design of Porous-Filled Tree-Shaped Networks for Optimal Flow
FD-P018	Bal Krishan	Shock-induced breakup of evaporating microemulsion droplets
FD-P019	Jyoti Prasad Rana	Gravity-Driven Interactions and Collisions of Drops with Density and Viscosity Contrast
FD-P020	Arnab Choudhury	Motion of a T-shaped particle settling in a viscous shear flow
FD-P021	Meenu Rani	Laser-Induced Liquid Jets in Binary Mixtures
FD-P022	Subhra Jyoti Paul	Pattern formation of a falling non-Newtonian fluid on a moving substrate
FD-P023	Subhajyoti Sahoo	Spontaneous Rotation in Electroosmotic Soft Lubrication on Viscoelastic Foundations
FD-P024	Parmod Kumar	Double diffusive natural convection of non-Newtonian hybrid nanofluid in a H-shaped staggered porous enclosure
FD-P025	Rafal Blaszkiewicz	Vorticity-induced Reorientation of Microparticles in Steady and Unsteady Stokes Flow
FD-P026	Jogender Singh	Elasto-Inertial Dynamics of a Periodically Forced Rigid Spheroid in a Quiescent Viscoelastic Fluid
FD-P027	Michalina Szpak	Anisotropic Mass Deposition in Elongated Coffee Rings
FD-P028	Arabdha Bhattacharya	Coagulation of Charged Colloidal Particles in Turbulent Flow
FD-P029	Amal Manoharan	An Eulerian Framework for Measuring Topological Entropy in Two-Dimensional Turbulence
FD-P030	Anvesh Sangadi	Role of hysteresis in altering flow pattern near a moving contact line
FD-P031	Yatharth Gupta	Investigating the importance of fluid rheology on 2D crack propagation
FD-P032	Uma Tulsiani	Parametric Study on Microfluidics-based Nanoparticle coating of Polymeric Microfibers
FD-P033	Rinesh T	Nanoscale Dynamics in Choline Chloride based Deep Eutectic Solvents: Insights from Neutron Scattering
FD-P034	Siddhartha Sankar Das	Hemodynamics and heat transfer in bifurcated blood vessels: Insights from a two-phase Eulerian-granular model on bifurcation angle and asymmetry effects
FD-P035	Thakurdas Mahata	Surface heterogeneity and non-linear couplings giving rise to modifications in Taylor-Aris dispersion
FD-P036	Sharmistha Kar	A Physics-Informed Neural Network Framework for Fluid-Structure Interaction in Aneurysmal Blood Flow
FD-P037	Saini Jatin Rao	Dynamics of inflating soap bubbles
FD-P038	Aravind Dhananjeyan	Open-Channel Granular Flow Over a Semi-Ellisoidal Obstacle
FD-P039	Kaustuv Lahiri	Interface-resolved simulations of inertial particle collisions in laminar and turbulent flows
FD-P040	Malyadeep Bhattacharya	Modelling of contact angle hysteresis for rigid mobile particles: a phase-field lattice Boltzmann approach
FD-P041	AAYANSHU KUMAR	Drop dynamics in an acoustically actuated chamber
FD-P042	Vishal Tiwari	Interplay of Viscous Fingering and Diffusion-Driven Instabilities in Autocatalytic Fronts
FD-P043	Ankan Biswas	Topological entropy of stationary three-dimensional turbulence
FD-P044	Anant Chauhan	Electrokinetic and electro-elastic instabilities in viscoelastic microfluidic flows: suppression and augmentation in mixing efficiency
FD-P045	Deepak Sharma	Understanding granular flow in a silo through the lens of acceleration fields
FD-P046	Sourav ganguly	Hydrodynamic Behaviour of an Active Spherical Janus Particle in Non-Newtonian Fluids: Influence of Surface Coverage, Activity, and Mobility
FD-P047	N.P. Vaisakh	Internal Flow Dynamics Governing Pattern Formation in Drying Colloidal Droplets
FD-P048	ARUNDAS N C	Capillary Interactions at the Contact Line of an Evaporating Drop
FD-P049	Kunal Kailash Sharma	Optimizing Spiral Jet Mill Performance via CFD and Experimental Scale-Up
FD-P050	Mrinal Jyoti Powdel	Uncertainty Growth in Stably Stratified Turbulence
FD-P051	Siddhartha Mukherjee	Motion of an Active Droplet in Gravity
FD-P052	Anwesha Dey	Gradient Statistics in Multiphase Turbulent Flows
FD-P053	AZIM BABU VALI MEMON	Flow Induced Oscillation of two and three cylinders at Subcritical Re
FD-P054	Soham Shrirang Pathak	Thermocapillary action of internal heat generation governs the migration of a droplet in a Poiseuille flow
FD-P055	Pratyush Kumar Mohanty	Elastic Instabilities in Taylor-Couette Flow: The Interplay of Hoop Stress and Polymer Diffusive Instability
FD-P056	Sreelakshmi Pillai	Shear Induced Dispersion in PTT Fluid
FD-P057	SNEHIL RANA	Absolute Instability in the Proximal Airways
FD-P058	Kunal Kumar	Bending Regulates Flow of Biofluids through Soft Pores
FD-P059	BISWAJIT MAJI	Vortex triplets, symmetry breaking, and emergent nonequilibrium plastic crystals in an active-spinner fluid

10TH INTERNATIONAL SOFT MATTER CONFERENCE (ISMC 2026)

Interfaces, Surfaces, and Membranes (ISM)

Poster contributions

Poster No	Presenting Author	Poster Title
ISM-Poster-001	Preetika Karnal	Effect of surface stress on roughness and adhesion of soft solids
ISM-Poster-002	Rumal Singh	Electrowetting of a Chemically Heterogeneous patterned surface
ISM-Poster-003	Akshat Gupta	Anomalous relaxation of a film of nanoparticles at air-water interface
ISM-Poster-004	Jack W Avery	Understanding Particle Adsorption at the Oil/Water Interface in Light-Responsive Pickering Emulsions
ISM-Poster-005	Yusei Kobayashi	Molecular Dynamics Study on the Effect of Wall Wettability on Thermal Transport of Water Confined in Nanotubes
ISM-Poster-006	Charul Gupta	Experimental evidence of slip: resolution of the moving contact line singularity
ISM-Poster-007	Mayuresh A. Kulkarni	Robust superhydrophobic surface by soot impregnation on polymer surface
ISM-Poster-008	Puli Saikiran	Interface instabilities and diffusion-driven patterns during phase change in binary mixtures
ISM-Poster-009	Sitara Khan Teli	Hydrogen Bonding Environment of Confined Water at Air-Binary Liquid Mixture Interface
ISM-Poster-010	FABINA A	VAPOR LIQUID PHASE SEPARATION IN COMPLEX CONFINED GEOMETRY A CONTINUUM PHASE-FIELD APPROACH
ISM-Poster-011	Surya Kumar	Plasmonic Hotspot-Driven Fluorescence tuning in Nitrogen-Doped Carbon Quantum Dots: Theoretical Insights and Experimental Validation
ISM-Poster-012	Nidhi Talwar	Engineering Ice-adhesion Strength on Polymer Nanocomposite Coatings using Custom-Built Lateral Force Measurement Setup
ISM-Poster-013	Rakshith Kamath	Surface Molecular Order Governs Microdroplet Collisions of n-Alcohols
ISM-Poster-014	Saurav Tyagi	Charge Regulation Mediated Macromolecular Interactions
ISM-Poster-015	Priyanka Nath	Interaction of Metal Ion Stabilized Oligomeric Dipeptide with Lipid Membrane: Concurrent Observations of Supported Lipid Membrane, Wetting, and Uptake
ISM-Poster-016	Yashvi Sheth	Surface-Modified Fibrous Substrates for Nanoparticle Impregnation and Heavy Metal Removal
ISM-Poster-017	Puneeth S	Cheerios effect on minimal surfaces
ISM-Poster-018	Sagar Shayer Yaar	Probing the Interaction of Self-Assembled Amino Acid with Lipid Monolayer at Air-Water Interface
ISM-Poster-019	Karthik Sudharman K K	Rapid Detection of Edible Oil Adulteration via Spontaneous Spreading Dynamics
ISM-Poster-020	Aashna Chawla	Surface energy-driven crumpling transition in a thin sheet under compression
ISM-Poster-021	Shivam Shah	Uncoupled Langevin Normal-Mode Sampling of Slow Remodeling in Symmetric and Asymmetric Lipid Bilayers
ISM-Poster-022	Vaddepalli Reena	Triphenyl pyridine-Based Backbone Engineering for Anion Exchange Membranes
ISM-Poster-023	Hariharan Sekar	Iodine-Integrated Waterborne Polymer Coatings: Chemistry, Film Morphology, and Performance
ISM-Poster-024	Anisha Majhi	Higher actin contractility and cargo-loaded clathrin pits create midplane-peaked apico-basal tension profiles in HeLa cells
ISM-Poster-025	Ashim Jyoti Nath	Interfacial deformation and capillary ridge formation in two-layer flow over stepped topography
ISM-Poster-026	Vijay Yadav	Data-driven modelling of phase-ordering kinetics
ISM-Poster-027	ARDHRA D MENON	Shielded Liquid Marbles for Enhanced Evaporation Resistance
ISM-Poster-028	Dhiraj Kumar Yadav	Thermoosmotic Transport in Polyelectrolyte Brush-Grafted Microchannels Under Weak Thermal Gradients
ISM-Poster-029	Afsal CP	Coalescence of Bubble-Glass System in Electrolytes
ISM-Poster-030	varghese babu	A numerical model for liquid crystallization in porous media
ISM-Poster-031	Daniya Davis	Dewetting Dynamics of Active Thin Film on Solid Substrate
ISM-Poster-032	G R Abhishek Rao	Influence of Electrostatic Interactions between Substrate and Surfactant on the Dried Morphology of Drops
ISM-Poster-033	Bhanu Pratap	Epoxy Silane as a Multifunctional Adhesion Promoter for Acrylic Latex Polymers: Enhancing Underwater Adhesion
ISM-Poster-034	Deepu Mohan	Scaling of evaporative flux in capillary bundles
ISM-Poster-035	Neethu Thomas	Gold nano colloids (Au NPs) and carbon quantum dots (CQDs) driven hue-specific mechanochromism in structured polydimethylsiloxane (s-PDMS)
ISM-Poster-036	TAREN GINTER	Molecular dynamics reveals how amino acids bind to fatty acid membranes: a path towards protocells
ISM-Poster-037	Meneka Banik	Influence of Substrate Wettability on the Drying of Active Colloidal Droplets
ISM-Poster-038	Aditya Syamala	Slippery Liquid Infused Bacterial Cellulose Surface : Improving Anti-Fouling Performance in Commercial Catheters
ISM-Poster-039	Ankita Choure	Interfacial Self-Assembly of Perovskite-Sulfide Heterostructures: Photocatalyst for Photon-Harvesting Energy System and Wastewater Treatment
ISM-Poster-040	SANGRAM KISHOR BEHERA	Confined Water Transport in Graphene Oxide Membranes: Role of Functional Groups
ISM-Poster-041	Arjun A	Tuning Interfacial Thermal Resistance in Graphene-Based Electrodes Using Mixed Ionic Liquids
ISM-Poster-042	Yogeshkumar	Sequence-Controlled Packing and Selectivity in Copolymer Membranes
ISM-Poster-043	Kavuru Praveen	Lubricant Infused Nanostructured Surfaces: Effect of Lubricant Viscosity on Fog Harvesting and Longevity
ISM-Poster-044	Divya Jindal	Investigating the Sequential Events of Membrane Deformation at Nano-Bio Interfaces
ISM-Poster-045	SURAJIT DAS	Cholesterol modulates the membrane-membrane interaction induced by an antimicrobial peptide, NK-2 in phospholipid vesicles
ISM-Poster-046	Rakesh Choubey	14 % material waste reduction in HDPE packaging bottles due to surface micro-nano patterning
ISM-Poster-047	Sarah Ahmad Siraj	Polymorphic Phase Control of Vapor Actuation in Protein-Based Films
ISM-Poster-048	Dr. Sumit Kumar	Electrowetting-on-Dielectric (EWOD)-Controlled Gas Compression in Narrow Confinements
ISM-Poster-049	Shefali Srivastava	Probing Membrane Heterogeneity in Biomimetic Membranes using Microsphere Inclusions
ISM-Poster-050	Viplav Kumar Bhondekar	Adhesive failure mechanics of polymer coatings
ISM-Poster-051	Om Khare	Fabrication of a Lab-on-Chip Sensor for Simultaneous Detection of Toxic Ions in Contaminated Water Using Microbubble Lithography
ISM-Poster-052	Anusree Sen	Cholesterol mediated heterogenous hydration dynamics surrounding diverse lipid membranes
ISM-Poster-053	V.M.T. Naidu Moram	Effect of pH and Salt on the Protonation State and Phase Behavior of Aromatic Acid Derivative of Cholesterol at Air-Water Interface
ISM-Poster-054	Chiranjit Majhi	Engineering Interfacial Adhesion of Thin Polymer Films with Nanoscale Heterogeneities
ISM-Poster-055	Shreyank Goel	Surfactant-mediated modulation of thin droplets spreading on a soft substrate
ISM-Poster-056	Shrushti Thakkar	Synergistic Effects of Micro/Nanotopography and Surface Chemistry on Bacterial Adhesion
ISM-Poster-057	Daniel Pliego Sosa	Simultaneous 2D-interfacial and 3D-bulk separation in emulsified aqueous polymer systems
ISM-Poster-058	Aakash Kumar	Sustainable bipolymer gels for antifreeze design
ISM-Poster-059	Eeshan Ghaisas	Driving Compression in Photoswitchable Lipid Bilayer Membranes
ISM-Poster-060	Sonam Raghav	Exploring pore-formation kinetics by antimicrobial peptides in giant unilamellar vesicles

10TH INTERNATIONAL SOFT MATTER CONFERENCE (ISMC 2026)

Liquid Crystals and Anisotropic Matter (LCAM)

Poster contributions

LCAM		
poster number	Author Name	Title
LCAM-Poster-001	Muskan Kaur	Nematic Liquid Crystals for Sub-Nanomolar Protein Sensing
LCAM-Poster-002	Muskan Duggal	Carboxyl-Mediated Self-Assembly Induced Cholesteric Physical Gels with Nematic Liquid Crystals as Hosts
LCAM-Poster-003	Debabrata Deb	Splay and bend elasticity in two-dimensional nematic liquid crystals
LCAM-Poster-004	Khalid Jamal Ansari	Template-less electric-field-induced micropatterning of a viscoelastic polymer thin film.
LCAM-Poster-005	Puneet Koli	Population balance framework for modeling zinc oxide nanorod formation by nucleation, growth and aggregation
LCAM-Poster-006	Jayanth Shenoy	Transitional snowflake morphologies
LCAM-Poster-007	Bidisha Bag	Elastocapillary thinning of ferroelectric nematic liquid crystal filaments
LCAM-Poster-008	Dhananjoy Mandal	Electric-field-induced short-axis biaxial relaxation mode under confinement of cybotactic clusters in bent-core nematic liquid crystals
LCAM-Poster-009	NEERAJ C S	Experimental and Computational Studies on stimuli response of Polymer Dispersed Liquid Crystal/GO Nanocomposites
LCAM-Poster-010	Nikita Shraogi	Ionizable Lipid Enabled pH-Responsive Lyotropic Liquid Crystalline Nanoparticles for Enhanced Antibacterial and Anti-Biofilm Therapy
LCAM-Poster-011	SAIKAT DAS	Phototunable adaptive colloidal microrobots in a nematic liquid crystal
LCAM-Poster-012	Priyanka Nemani	Photoactuation and Anisotropic Viscoelasticity in Liquid Crystal Elastomers
LCAM-Poster-013	Jaydeep Mandal	Phase behaviour and defect structure of soft rods on a sphere
LCAM-Poster-014	SRIJITA DE	Nematic Droplet under Electric Field
LCAM-Poster-015	Sarangi Krishna	Mesoscopic simulations of Liquid Crystal tactoids and elastomers
LCAM-Poster-016	Praveen Kandpal	Indolo-[2,3-b]quinoxaline: A Core for the Stabilization of Room Temperature Liquid Crystalline Self-Assembly, Aggregation-Induced Emission, and Bioimaging Applications
LCAM-Poster-017	Parvathi K	Phase Behaviour, Entropy and Fluidicity in Helical Rod Systems
LCAM-Poster-018	Himani	Design and Synthesis of Anthraquinone-Cholesterol Rigid Chiral Systems for Optoelectronic Applications
LCAM-Poster-019	Sumant Pandey	Janus nematic droplet dynamics and photonic
LCAM-Poster-020	Hiba Muhammad	Exploring the effect of solvent polarity and fatty acid concentration on the microstructural evolution of soap formulations

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Polymers and Gels (PG)

Poster contributions

PosterID	Presenting Author	Poster title
PG-Poster-001	Hemant Kumar Bankhede	Revolutionizing 3D Bioprinting Using Pharmaceutical Polymer-Based Hydrogels
PG-Poster-002	Bidisha Mukherjee	Effect of implicit bubble sizes and positioning on force induced DNA melting
PG-Poster-003	Sharon P	Effect of dynamic-crosslinking on the properties of double-network conductive hydrogel
PG-Poster-004	Garima Mishra	Driving mixing of knots
PG-Poster-005	sunita kumari malla	Architectural Control of Mechanical Properties of Crosslinked Polymer Networks Based on Hyperbranched Polymers
PG-Poster-006	Chithira Ravindran	Role of Polymer Volume Fraction and Crosslinker Concentration on the Elastic and Fracture Properties of PolyacrylamideHydrogel
PG-Poster-007	Ashwin Kumar M	Effect of chain stiffness on the dynamics of polymeric Flash Nano-Precipitation: A Molecular Dynamics investigation
PG-Poster-008	Rishabh	Engineering bio-plasticizer for enhanced Thermoplastic polyurethane (TPU) polymer
PG-Poster-009	Shinjini Das	Swelling of polyelectrolyte gels – salt effects and application to drug delivery
PG-Poster-010	Tej Tarun Sharma	Understanding the coil-globule transition in semi-flexible polymers from an energy landscape perspective
PG-Poster-011	Manisha Kumari Meena	Ion Solvation Shell Structure in Water-Induced ssDNA/ssRNA-Ionic Liquid Electrolytes.
PG-Poster-012	Rakhi Katyal	Molecular dynamics study of ion transport in hydrated ssDNA/ssRNA [BMIM][PF6] electrolytes
PG-Poster-013	Sabarinathan S S	Spatial Programming of Anisotropy and Responsiveness in Stimuli-responsive Hydrogels through Multi-Axis Direct Ink Writing
PG-Poster-014	Parth Pandya	Transient Anomalous Thermal Expansion in Nonequilibrium Polymer Films
PG-Poster-015	Geethu P M	Programmable Light-Driven Actuation in Plasmonic Hybrid Multilayers of Starch
PG-Poster-016	Abishek Kumar	Plasma polymerization induced wrinkling of immiscible gels: An insight towards non-conventional fabrication of structured gels
PG-Poster-017	Bilga Bhuvan	Porous Light Responsive Thermoplastic Polyurethane (TPU)-DR1 as Prospective Pre-Strain Mediated Tubular Actuators
PG-Poster-018	Vijith S	Unraveling Thermally Driven Water–Polymer Coupling Mechanisms in Hydrogels via Molecular Dynamics and Machine Learning
PG-Poster-019	Drupitha M Paleri	Exploring the Potential of Jackfruit (Artocarpus heterophyllus) Latex as a Sustainable Resource Polymer
PG-Poster-020	Thoithoi Tongbram	Starch surface engineering for techno-functional control
PG-Poster-021	Onkarnath Verma	Eco-Friendly Dye Remediation using Rice Husk-Derived Activated Carbon Embedded PAMPS Hydrogel Composite
PG-Poster-022	Yogesh Thapliyal	Wrinkling Instabilities in Fiber Reinforced Elastomers
PG-Poster-023	Kiran Suna	Influence of Bond parameters and Surface Roughness on the Lap Shear Strength of the Adhesively Bonded 3D Printed PLA Parts
PG-Poster-024	Clara Neather	Agent-based modelling of phages in biofilms
PG-Poster-025	Saran Narayanasamy	Interplay between Relative Fraction of Polymorphic Phases and Temperature on the Non-Debye Type Dielectric Relaxation Dynamics of Tungsten Disulfide (WS2) Nanosheets /Polyvinylidene Fluoride (PVDF) Composite Films
PG-Poster-026	Aadarsh Kumar	Hydrocolloid-Driven Enhancement of Rheological and Thermal Stability in Corn Starch - Based Chocolate Fillings for Baked Applications
PG-Poster-027	Pratyasha Bhardwaj	Multiscale Simulation Approach for Studying Morphology Evolution in Polymers
PG-Poster-028	Dhananjay Dhatonde	Effect of polymer concentration on groundnut (Archis Hypogea) oleosome - polymer bridging based structuring and preparation of oleosome based oleogel
PG-Poster-029	Prashant Kumar	Cold Plasma-Induced Modulation of Charge and Coacervation in Pea Protein Isolate-Sodium Alginate Complexes
PG-Poster-030	Mekha. Akhila	Design, synthesis and evaluation of Zn (II)-coordinated imidazole polymer membranes for 2-substituted oxazoline synthesis.
PG-Poster-031	Aritra Das	Freeze-Thaw Engineered PVA Hydrogels as Confinement Media for Functional Small-Molecule Reagents
PG-Poster-032	Amit Varakhedkar	Linear viscoelasticity of semiflexible polymers in semidilute solutions
PG-Poster-033	Avishek Kumar	Linking molecular timescales to linear viscoelastic response in dilute and semidilute unentangled wormlike micelles
PG-Poster-034	Soumyajit Pradhan	Cyclic hardening in colloidal gel
PG-Poster-035	Celin Rooth	Biocompatible poly (vinyl alcohol)-based eutectogels for flexible sensors
PG-Poster-036	Rajiblochan Sahoo	Microphase-Controlled Chain Relaxation in Dynamic Covalent Networks
PG-Poster-037	Lakshya Pratim Bora	Composition Driven Gelation and Tunable Rheology in Nanoclay-Polysaccharide Systems
PG-Poster-038	Swasthika Arunachalam	Process-property relations in polymer electrospinning guided by real-time cone/jet visualization
PG-Poster-039	Aniket Mukhopadhyay	Phase Separation in Charged Soft Matter: Polyelectrolyte Gels and Beyond
PG-Poster-040	Pankaj Mahawar	Scaling Laws for Confinement-Induced Phase Miscibility of Polymer Blends
PG-Poster-041	Ethan Thomas	dECM Hydrogel Patch with controlled fiber orientation for Tympanic Membrane Perforation
PG-Poster-042	Bhavesh Rameshwar Sarode	Free Energy and Kinetics of Polymer Translocating Through Nanopore: Simulation and Theory
PG-Poster-043	Pritha Acharya	Novel rheological insights into the phase transition of a thermoresponsive polymer solution
PG-Poster-044	Nandhu Krishna Babu	Bacteria in a Semi-permeable Porous Media
PG-Poster-045	Monmee Phukan	Universal Reentrant Polymer Behavior from Bridging Crowders: Neutral and Charged Chains
PG-Poster-046	Hitesh Garg	Interfacial Properties of Biomolecular Condensates
PG-Poster-047	Kushagra Goel	Non-additive ion effects on the coil-globule equilibrium of a generic uncharged polymer
PG-Poster-048	Rakesh Palariya	Force-induced Elastic Softening and Conformational Transitions in a Polyampholyte Chain
PG-Poster-049	Anwesha Mohanty	Drug delivery mechanism in oral osmotic tablets
PG-Poster-050	Sakshi Khandelwal	Mechanical training and memory in hydrogels.
PG-Poster-051	Ankita Gupta	Effect on interfacial morphology and ordering of binary fluids in the presence of amphiphilic polymers of varying topologies: Insight from DPD simulation study
PG-Poster-052	Vrinda Garg	Semiflexibility speeds up the translocation of multiple polymers in nanopores

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Rheology and Non-equilibrium Phenomena (RNP)

Poster contributions

Poster ID	Presenting Author	Poster Title
RNP-Poster-001	Manmath Sahoo	Development of a High-Sensitivity Interferometric Atomic Force Microscope for Off-Resonance Dynamic Single-Molecule Spectroscopy
RNP-Poster-002	Palash sunil sarate	Localization in granular chain ensembles
RNP-Poster-003	Anjaly C	Residual Stress in Sheared Dense Disordered Materials
RNP-Poster-004	Sachin Balasaheb Shinde	A Benchmark Rheological Framework for Characterizing Inertia–Capillary–Viscous Interactions in Complex Fluids
RNP-Poster-005	Anand Kumar	In-situ Characterization of Granular Kinematics and Boundary Interactions in Dense Rotating Flows
RNP-Poster-006	Asisha Ranjan Pradhan	Rheological Characterization of Polycarbosilane for Melt Spinning of Si-C Fibers
RNP-Poster-007	Pratibha Gangwar	Active fluid in confined geometry
RNP-Poster-008	Pritam Kumar	Nanoscale Rheology of Water near Surfaces
RNP-Poster-009	Jami Prashanti	Unraveling the Nature of Medium-Density Amorphous Ice Using the Potential Energy Landscape Framework
RNP-Poster-010	Sneha S. Puri	Effects of Particle Concentration & Shape Anisotropy on the Electrorheological Behaviour of Hematite Suspensions
RNP-Poster-011	Rohit V Menon	Late-Stage Fragmentation Kinetics in Dewetting Polymer Thin Films
RNP-Poster-012	Mohua Das	Stable and Interpretable Multi-Mode Rheological Universal Differential Equations (RUDEs) for Linear and Branched Polymer Flows
RNP-Poster-013	Aditya Ganesh	Universal features of Lagrangian polymer conformation statistics in homogeneous isotropic turbulence
RNP-Poster-014	Soumen Bhukta	Memory of Amplitude: Below and Beyond the Yielding
RNP-Poster-015	Shruti Pandey	Depletion layers, apparent slip, and the polymer diffusive instability
RNP-Poster-016	ADITYA CHAUDHURY	Shear-Induced Conformational Dynamics and Rheology of Dilute Polymer Solutions
RNP-Poster-017	Sourav Kumar Singh	Rigidity Transition in Polydisperse Shear-Thickening Suspensions
RNP-Poster-018	Samudro Ghosh	Dynamic hysteresis and transitions controlled by asymmetric potential barrier shaping
RNP-Poster-019	MAITRI MANDAL	Kovacs memory without a peak in colloidal glass: role of directional asymmetry
RNP-Poster-020	Mounesh C	Effects of Non-Newtonian Rheology on Miscible Viscous Fingering in Porous Media
RNP-Poster-021	Niloyendu Roy	Putting a Twist on Viscoelasticity: Geometry as a Source of Memory
RNP-Poster-022	Sachidananda Barik	Tuning Structure and Rheology of Depletion Gels through Oscillatory Shear
RNP-Poster-023	LAKSHMI PRIYA K	Phase separation in binary fluids driven by a moving cooling source
RNP-Poster-024	Harsh Rathore	Understanding the properties of ubiquitin domain in polyubiquitin chain using dynamic AFM
RNP-Poster-025	Saumili Jana	Solidifying Jets
RNP-Poster-026	Nicholas Guan Xue King	Novel Training Protocols for Multi-Mode Rheological Universal Differential Equations
RNP-Poster-027	Akash Kumar Meel	A hybrid Green-Kubo (hGK) framework to compute transport coefficients from short MD simulations
RNP-Poster-028	Vedant Vijay Gaonkar	Mechanical Anomalies in Folded I27 Polyproteins Revealed by Interferometric AFM
RNP-Poster-029	Lukas Fischer	Enhancing the magnetorheological effect of magnetic elastomers
RNP-Poster-030	Pranav G. R. Krishnan	Nonlocal constitutive relation for glass-formers in confinement
RNP-Poster-031	Bhanupriya Rout	Active polymer models: Unravelling the 3D organization and dynamics of chromosomes
RNP-Poster-032	Dhruv Agrawal	Beyond Stochastic Resonance: Conditional Transition Dynamics in a Coupled Bistable Dimer
RNP-Poster-033	Abhijit Mandal	Role of Stiffness Bidispersity in Encoding Mechanical Memories in Soft Colloidal Glasses
RNP-Poster-034	Rahul Nayak	Glassiness and mechanical response in 2d ring polymer systems
RNP-Poster-035	Shivangi Mittal	Nonmonotonic Stress Relaxation and Residual Stresses in Viscoelastic Aging systems
RNP-Poster-036	Kushagra Tiwari	Tuning the cross-stream migration in viscoelastic shear: hydrodynamics of forced vs force-free mechanisms
RNP-Poster-037	Riya Karmakar	Understanding the role of sample preparation parameters on gelation of a colloidal dispersion
RNP-Poster-038	Nikitha Lohia	Bridging rheology and 3D printing of soft complex Inks
RNP-Poster-039	Anisha Yeddanapudi	Statistical Mechanics of Evolving Assembly Spaces
RNP-Poster-040	Yujiro Furuta	Bubble dynamics during the deswelling of gel foams
RNP-Poster-041	SAISAVADAS MEETHALE VEEDU	Interplay between Aging and Strain Hardening in Colloidal Gels
RNP-Poster-042	Amir Shee	Heterogeneous size and activity control glass transition

10TH INTERNATIONAL SOFT MATTER CONFERENCE (ISMC 2026)

Sustainability (S)

Poster contributions

Poster Number	Presenting Author	Poster Title
S-Poster-P001	PRANISHA P.T	Low-Poster-Viscosity Porous Liquids for Enhanced Carbon Capture and Conversion
S-Poster-P002	Ramyaranjan Das	Rheology-Poster-Driven Design of Starch-Poster-Tamarind kernel seed powder Based Film-Poster-Forming Solutions for Sustainable Packaging Applications
S-Poster-P003	Ganesh Kumar Rajahmundry	Molecular mechanisms of ion-Poster-transport in crosslinked polymer electrolytes
S-Poster-P004	Faiz Ahmad	Development of Biopolymer based aqueous coatings for high-Poster-barrier food packaging applications
S-Poster-P005	Pradyuman Singh	Weak Electron-Poster-Phonon Coupling in NUV-Poster-excited Sr3Ca3(PO4)4: Eu doped Phosphor
S-Poster-P006	Leena Bhadra	Closing the Loop in Food Protection: Nano-Poster-enabled Bacterial Cellulose Films as Sustainable Packaging Barriers
S-Poster-P007	RUKHSAR PARVEEN	PERFORMANCE EVALUATION OF A SINGLE-Poster-NEEDLE ELECTROSPRAY-Poster-BASED AIR CLEANER DEVICE
S-Poster-P008	Krishna Kumar Patel	Hydrogen Storage in Carbon-Poster-Based Materials: From 2D Sheets to 3D Pillared Frameworks
S-Poster-P009	KIRTI KUMARI	Transforming Waste Papers into High Value Nanocellulose for Sustainable Packaging Application
S-Poster-P010	Arunima Roy	Engineering Scalable Non-Poster-PFAS Hydrophobic Surfaces from Green, Naturally Derived Materials
S-Poster-P011	DEVI RUPA SAHA	High-Poster-Performance Microdroplet Tribogenerator Stimulated by Coupled Photonic and Phononic Excitations
S-Poster-P012	Manjot Singh	Generation of Tyre Micro/Nano-Poster-plastic in Wetting Conditions
S-Poster-P013	Nex Stuhlmüller	Microfluidic memristive oscillators as universal logic gates for neuromorphic computing

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Self assembly and Self organisation (SASO)

Poster contributions

Poster Number	Presenting Author	Poster Title
SASO-Poster-001	Misthi Singh	Entropy – Enthalpy Balance as a Tool to Control Social Diversity in Multicomponent Supramolecular Hydrogels
SASO-Poster-002	B Swathy Krishna	Structural Correlations and Thermodynamic Response in Simple and Anomalous Liquids
SASO-Poster-003	Pranav	Insights into Phase Behaviour and Self-Assembly of Trehalose-Based Glycolipids
SASO-Poster-004	Sneha Maithil	Employing Cu(II)/Ag(I)-Metal-Organic Gel-Based Photocatalyst for Oxidation of Malodorous Thiols using Coiled Flow Inverter
SASO-Poster-005	SANJIB MAJUMDER	Direct Visualization of phase transitions in monolayer of microgel particles
SASO-Poster-006	Prabeen Kumar Pattnayak	Self-assembly Kinetics of Macromolecules: Role of Rotational Diffusion
SASO-Poster-007	Gokul Venkatasubramanian	Adaptive Disorder Dynamics and Emergent Failure in Heterogeneous Systems
SASO-Poster-008	Yagya Raj Subedi	Specific Ion Effect in Binary Mixtures using Raman Spectroscopy
SASO-Poster-009	Ankur Saha	Coarse-grained Simulation Reveals Shell Formation and Size Stratification during Evaporation-Induced Assembly in Colloidal Droplet
SASO-Poster-010	Achal Singh	In-situ measurements for understanding the synthesis and assembly of silica coated gold nanobipyramids
SASO-Poster-011	Suryakamal Sarma	Acidic Amino Acid Induced 5′-Guanosine Monophosphate Fibrillar Nanozyme: A Highly Efficient Metal-free Intrinsic Peroxidase Mimics
SASO-Poster-012	Gollanapalli Vaishnavi	Self-Assembly in Sparsely-Grafted Nanoparticle Systems with Extreme Graft Bidispersity
SASO-Poster-013	Shamitava Roy	Development of Contact Order Parameter and its Role in Studying Phase Transitions in Hard Particle Systems
SASO-Poster-014	Chandra Shekhar Maurya	Field-Driven Self-Assembly and Self-Organization in Ferrofluid Nanoparticle Systems
SASO-Poster-015	Advait Thatte	Gravitationally induced oscillations of active droplets
SASO-Poster-016	Aishani Ghosal	Physical Principles of Client Enrichment in Multicomponent Biomolecular Condensates
SASO-Poster-017	Mukul Kumar	Influence of Annealing Temperature on the Optical and Magnetic Properties of Fe3O4 Thin Films Spin Coated on Glass Substrates
SASO-Poster-018	Dipika Pradhan	Free-Energy Landscapes and Morphological Transitions in Binary Nanoparticle Mixtures Tuned by Interaction Range
SASO-Poster-019	Sagar Kumar Pathak	Manipulation of Chirality in Organogels through β-Cyclodextrin–Benzyl Alcohol Host–Guest Assembly
SASO-Poster-020	Minakshi Jangir	Activity-driven structures in polymer-grafted active colloids
SASO-Poster-021	Appala Naidu Rayavarapu	Formation of 2-Dimensional Binary Crystals in additive Hard Disk Mixtures
SASO-Poster-022	JAGADISHNAIK	Role of Boundary Length in Pattern Formation in a Monolayer of Repulsively Interacting Dipoles Confined to an Air-Water Interface
SASO-Poster-023	Nishant R Chirania	Effect of Lowered Surface Tension on the Self-Organization of Interacting dipoles at an Air Water Interface
SASO-Poster-024	Keya Mondal	Temperature dependent self-assembly and rheological study of PMMA-b-PNIPAM block co-polymer at air-water interface
SASO-Poster-025	Ankita Chouhary	Microbubble Lithography Based Field Deployable Multiplexed Lab-on-Chip System for Rapid Colorimetric Detection of Leptospirosis and Dengue in Human Samples.
SASO-Poster-026	Swarnima Agarwal	Nanoparticle Geometry-Driven Self-Assembly of Bioactive PS/PDMS Surfaces for Cell Differentiation
SASO-Poster-027	Saurabh Dubey	Self-Organized Dewetting and Convection-Assisted Fragmentation of Disposable Cup Linings as a Source of Micro- and Nanoplastics
SASO-Poster-028	Kaustav Chakraborty	Interplay of symmetry and geometry in orientational disorder in model colloidal crystals
SASO-Poster-029	Sankar Hariharan	Formation and Breakup of Semi-Crystalline Structure in Evaporating Pendant Drops Containing Micron-Sized Particles
SASO-Poster-030	Nishant U. Puri	Molecular dynamics study of temperature-dependent aggregation and crystallization mechanism of short n-alkanes from solution
SASO-Poster-031	Piyali Mukherjee	Coacervation of Elastin-like Polypeptides: A Coarse-Grained Perspective
SASO-Poster-032	Jagat Singh	Self-assembly of Grafted Nanoparticles within Ordered Mesophases of AB Diblock Copolymers