ISMC 2025

9th International Soft Matter Conference

29 Sep - 3 Oct 2025 | Chania, Crete, Greece

Scientific Program

TABLE OF CONTENTS

WELCOME NOTE

It is our great pleasure to welcome you to the 9th International Soft Matter Conference that takes place in Crete, Greece from the 29th of September to the 3rd of October 2025. The conference aims to bring together scientists from all fields of Soft Matter with expertise in Physics, Chemistry, Biology and Engineering. Sessions will include Plenary and Keynote presentations as well as contributed talks and posters along with discussion sessions.

The venue is the Minoa Palace Hotel and conference center, located in an idyllic location by the sea, outside the city of Chania in Western Crete. Complementing the scientific program, a rich social program will offer participants a taste of the culture, history and spectacular nature of Crete.

Welcome to Crete!

For the Local Organizing Committee,
George Petekidis, Benoit Loppinet, Dimitris Vlassopoulos

ORGANIZERS

FORTH INSTITUTE OF ELECTRONIC STRUCTURE AND LASER

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COMMITTEES

Local Organizing Committee:

George Petekidis (co-chair) | University of Crete & FORTH/IESL, Greece
Benoit Loppinet (co-chair) | FORTH/IESL, Greece
Dimitris Vlassopoulos (co-chair) | University of Crete & FORTH/IESL, Greece
Maria Vamvakaki | University of Crete & FORTH/IESL, Greece
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Vagelis Harmandaris University of Crete & FORTH/IACM, Greece
Spiros H. Anastasiadis | University of Crete & FORTH/IESL, Greece
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Eleni Pavlopoulou | FORTH/IESL, Greece
Emmanouil Glynos | University of Crete & FORTH/IESL, Greece
Maria Chatzinikolaidou | University of Crete & FORTH/IESL, Greece
Anna Mitraki | University of Crete & FORTH/IESL, Greece

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Michael Rubinstein (USA)
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Gijse Koenderink (The Netherlands)
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Amy Shen (Japan)
P. B. Sunil Kumar (India)

SESSIONS: TOPICS & ORGANIZERS

A. Active matter
- Giovanni Volpe (Sweden)
- Ignacio Pagonabarraga (Spain)
- Cecile Cottin-Bizonne (France)

B. Biological and living matter
- Edouard Hannezo (Austria)
- Patricia Bassereau (France)
- Roseanna Zia (USA)

C. Colloidal matter
- Christos Likos (Austria)
- Valeria Garbin (The Netherlands)
- Thibaut Divoux (France)

F. Fluid Dynamics and Rheology
- Yogesh Joshi (India)
- Irmgard Bischofberger (USA)
- Dmitry Fedosov (Germany)

G. Glasses, Granular, Jamming
- Marco Laurati (Italy)
- Srikanth Sastry (India)
- Annie Colin (France)

I. Interfaces, surfaces, membranes, emulsions
- Michael Kappl (Germany)
- Cecile Monteux (France)

- Halim Kusumaatmaja (Scotland)

L. Liquid crystals and anisotropic matter

- Eric Grelet (France)
- Wiktor Lewandowski (Poland)
- Rao Vutukuri (The Netherlands)

M. Experimental & Computational Methods (including AI)

- Sebastien Manneville (France)
- Roberto Cerbino (Austria)
- Safa Jamali (USA)

P. Polymers and Networks (including Sustainable Soft Matter)

- Yumi Matsumiya (Japan)
- Daniel Read (UK)
- Costantino Creton (France)
- Sanat Kumar (USA)
- Guruswamy Kumaraswamy (India)

BF. Biomedical & Food applications

- Peter Fisher (Switzerland)
- Mehdi Habibi (The Netherlands)
- Katharina Landfester (Germany)

GENERAL INFORMATION

Registration

Registration will be open from 16:00 to 19:00 on Sunday September 28 at Imperial Congress Hall (entrance/ground floor) and during the whole event from 08:00 to the end of day (according to the daily program) at the Secretarial Desk (Diazoma Conferences and Events) of the Conference Venue at Imperial Congress Hall (Meeting Rooms lobby/basement).

Information/Guidelines for Chairs and Presenters

Duration of presentations

Plenary Presentations: 45 minutes, including 5 minutes for questions.
Keynote Presentations: 30 minutes, including 5 minutes for questions.
Oral Presentations: 20 minutes, including 5 minutes for questions.

Guidelines for Oral Presenters

(1) Please bring your presentation on a USB stick.

(2) A laptop (NO MacBook) will be available in each room as well as a beamer.
No personal laptops will be connected, unless it is absolutely necessary and only after request to the conference registration desk.

(3) Please use PowerPoint compatible files.

(4) We kindly ask you to upload and test your presentation in advance, during the break before your session. There will be always a person from the conference organization in each meeting room to assist you during coffee breaks and lunch breaks.

Guidelines for Poster Presenters

(1) **Poster Session 1** is scheduled for Monday September 29 and Tuesday September 30 from 18:00 to 20:00 at Athina Hall. **Poster Session 2** is scheduled for Wednesday October 1 from 15:30 to 17:30 and for Thursday October 2 from 18:00 to 20:00 at Athina Hall.

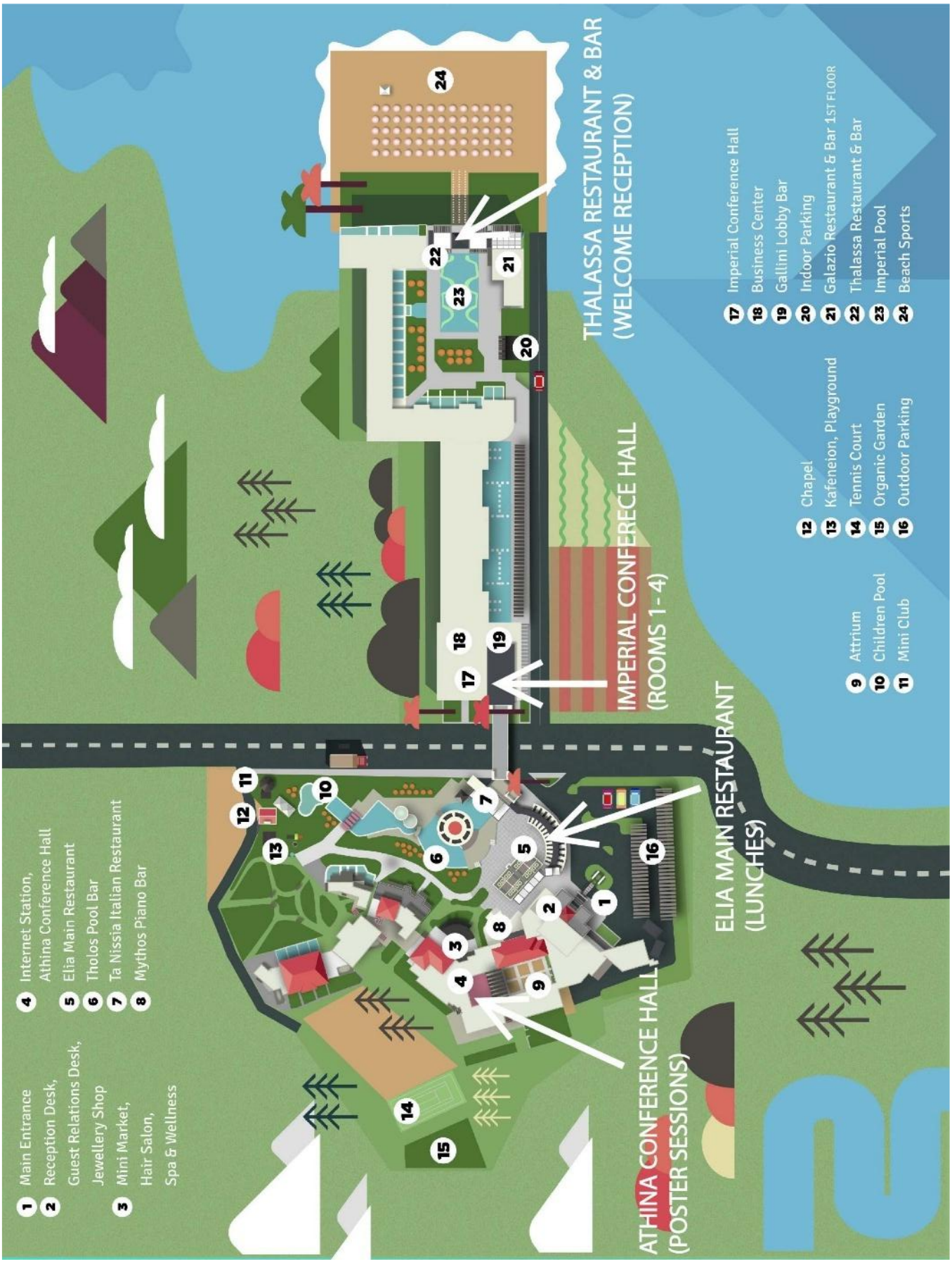
(2) The poster size is **A0** (84.1 cm x 118.9 cm or 33.1 inches x 46.8 inches) in Portrait – **NOT** Landscape.

(3) Presenters of Poster Session 1 can mount their posters during the lunch break on September 29 and must remove them by the end of the second day of their session (Tuesday September 30).

(4) Presenters of Poster Session 2 can mount their posters during the morning coffee or lunch breaks on October 1 and must remove them by the end of the second day of their session (Thursday October 2).

(5) Each poster panel will be identified by a poster number following the conference program. Please check carefully the poster session for your poster. Posters left on site will be collected by the conference personnel and taken to the Secretarial Desk.

The Venue


1 Main Entrance
2 Reception Desk, Guest Relations Desk, Jewellery Shop
3 Mini Market, Hair Salon, Spa & Wellness
4 Internet Station, Athina Conference Hall
5 Elia Main Restaurant
6 Tholos Pool Bar
7 Ta Nissia Italian Restaurant
8 Mythos Piano Bar
9 Attrium
10 Children Pool
11 Mini Club
12 Chapel
13 Kafeneion, Playground
14 Tennis Court
15 Organic Garden
16 Outdoor Parking
17 Imperial Conference Hall
18 Business Center
19 Gallini Lobby Bar
20 Indoor Parking
21 Galazio Restaurant & Bar 1ST FLOOR
22 Thalassa Restaurant & Bar
23 Imperial Pool
24 Beach Sports
THALASSA RESTAURANT & BAR (WELCOME RECEPTION)
IMPERIAL CONFERECE HALL (ROOMS 1 - 4)
ELIA MAIN RESTAURANT (LUNCHES)
ATHINA CONFERENCE HALL (POSTER SESSIONS)

Food and Beverages during ISMC 2025

All participants have access to lunch and coffee breaks. Coffee and beverages will be served at different spots of the Conference Venue. Lunch will be served every day in Elia Main Restaurant. For your convenience there are two different time-slots for lunch. The time-slot allocated to each participant (Slot 1 or Slot 2) will be indicated on the name badge provided during registration. Please keep your badge with you within all premises.

We kindly ask you to respect the slot plan, in order to minimize waiting time.

DAY	**SLOT 1**	**SLOT 2**
Monday 29/9/25	12:00-12:45	12:45-13:30
Tuesday 30/9/25	12:00-12:45	12:45-13:30
Wednesday 1/10/25	12:00-12:45	12:45-13:30
Thursday 2/10/25	12:00-12:45	12:45-13:30
Friday 3/10/25	13:45-15:00 ONE LUNCH SLOT ONLY	

Social activities

Welcome Reception (free access to every registered attendee)

The ISMC 2025 Welcome Reception will take place on Sunday, September 28 at the "Thalassa Restaurant and Bar" at Minoa Palace from 19:00 to 21:00.

Conference Dinner (Pre-Booking and pre- payment is required)

The Conference Dinner will take place on Thursday, October 2, at 20.00 at "Ktima Alkion", located 7,5 km from the Minoa Palace Resort Hotel (Conference venue). Shuttle bus service will be provided with the first bus departing outside the venue at 20.00.

USEFUL CONTACTS

Minoa Palace (Venue)	0030 2821036500
Chania Bus Station	0030 2821093052
Taxi Chania	0030 2821098700
General Hospital Chania	0030 2821342000
Medical Center- Vittorakis Polyclinic	0030 2821060606
1st Fire Department of Chania	0030 2821079340
Chania Police Station	0030 2821025854
Ambulance (emergency)	166
Fire Department (emergency)	199
Police (emergency)	100
European emergency service line	112

Conference Secretariat

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Tel: 0030 6908 215112

Emails: info@ismc2025.org , info@diazoma.net

PLENARY SPEAKERS

Eugenia Kumacheva *Department of Chemistry, University of Toronto*
Title: Biomimetic fibrillar hydrogels: from mechanical properties to applications

Man-made nanofibrillar hydrogels have emerged as a class of biomimetic materials reproducing the filamentous structure and properties of the extracellular matrix (ECM), acting as scaffolds for three-dimensional cell culture and tissue engineering, and offering applications in sensing and soft robotics. The mechanical response of fibrous gels to strain is largely governed by strong asymmetry in the deformation energy of the constituent filaments that are soft upon compression and stiff upon extension. This presentation highlights biologically relevant implications of such mechanical asymmetry.
In the first example, confinement of fibrous hydrogels in narrow capillaries mimicked obstruction of blood vessels with blood clots. We show experimentally and theoretically that filamentous gels respond to such confinement in a qualitatively different manner than gels formed by single-molecule flexible strands. Under strong confinement, fibrous gels exhibit a very weak elongation and an asymptotic decrease to zero of their biaxial Poisson's ratio. Such response results in strong gel densification and a weak flux of liquid through the gel. This behavior sheds light on the resistance of strained occlusive blood clots to lysis with therapeutic agents and stimulates the development of effective endovascular plugs for stopping vascular bleeding or suppressing blood supply to tumors.
The second example highlights the importance of structural anisotropy of fibrous hydrogels. For the filamentous synthetic hydrogel with a structure reproducing the organization of fibers in collagen networks surrounding cancer tumors, we show that the hydrogel's response to radial compression (replicating tumor growth) is governed by the type and degree of structural anisotropy of the gel network. These findings underline the importance of the design of "precision biomaterials" that faithfully recapitulate key microenvironmental characteristics of cancer tumors.
Finally, an engineered nanofibrillar hydrogel has been designed as a scaffold for the initiation and growth of breast cancer patient-derived organoids, 3D cell cultures replicating the structure and function of cancer tumors. The hydrogel had highly controllable composition and mechanical properties. The organoids grown in the hydrogel had histopathologic features, gene expression, and drug response that were similar to those of their parental tumors, thus, offering a highly promising model for personalized medicine.

Lucio Isa *Department of Materials, ETH Zurich*
Title: The Past, Present and Future of Capillarity-Assisted Particle Assembly (CAPA)

The assembly of colloidal particles into targeted structures, clusters and arrays is at the core of many of the technologies, processes and materials that use micro and nanoparticles as their constitutive units. Among the different strategies that we have developed to direct colloidal assembly, the use of capillarity presents numerous advantages.
Capillary forces emerge whenever any colloidal particle deforms a fluid interface, are long ranged and can be orders of magnitude stronger than other colloidal forces. When combined with topographical templates, they can therefore be used to place different particles into prescribed patterns, from arrays of individual colloids to tailored multi-material clusters.

In this talk, I will present a brief historical perspective of Capillarity-Assisted Particle Assembly, or CAPA, followed by a review of where our group uses it and why. In particular, I will show that CAPA is uniquely suited to synthesize colloidal clusters, whose composition and geometry can be independently tailored to create a broad class of artificial microswimmers, and to template the nanoprinting of responsive hydrogels. I will conclude by demonstrating that CAPA has still a lot to offer for the future, where overcoming some of its challenges has opened up new exciting opportunities. In particular, I will show how CAPA can be extended to the patterning and assembly of biological objects and how, taking an icy twist, CAPA has now become even cooler.

Daniela Kraft *Leiden University*
Title: Autonomous life-like behavior emerging in active and flexible microstructures

Many organisms leverage an interplay between shape and activity to generate motion and adapt to their environment. Embedding such feedback into synthetic microrobots could eliminate the need for sensors, software, and actuators, yet current realizations at the micrometer scale are either active but rigid, or flexible but passive.
Here, I will show that 3D microprinting is a powerful tool to create anisotropic and flexible microswimmers.1 I will discuss how shape affects their interactions and clustering behavior,2 and introduce microstructures that integrate both activity and flexibility.3 I will demonstrate that this minimal yet versatile design gives rise to a rich array of life-like modes of motion — including railway and undulatory locomotion, rotation, and beating — as well as emergent sense-response abilities, which enable autonomous reorientation, navigation, and collision avoidance.

Matthieu Wyart *EPFL Lausanne*
Title: From the glass transition to creep flows

Under cooling, a supercooled liquid undergoes a glass transition and stops flowing. Physicists do not agree on the microscopic reasons that make a glass solid. Some view this phenomenon as being collective in nature: it may be a signature of a thermodynamic phase transition or being caused by kinetic constraints (where particles seek to solve a sort of Chinese puzzle). Others view it as simply reflecting elementary barriers for rearrangements, controlled by the elasticity of the material. To resolve this issue, I will introduce novel algorithm to systematically extract elementary rearrangements in a broad energy range. The analysis reveals that for simple glasses, relaxation is not cooperative in nature. I will then introduce a theory of dynamical correlations in super-cooled liquids based on coupled local rearrangements, which connects this phenomenon to avalanche-type responses observed in driven disordered materials. I will discuss positive empirical tests of this view in both realms, supporting that this framework unifies these different fields.

Anke Lindner *University Paris Cité*
Title: Transport dynamics of confined particles: from complex shapes to collective effects

Understanding microparticle transport in complex environments is essential for applications ranging from pollution control to particle sorting and intracellular dynamics. Transport is governed by the interplay between particle properties, flow conditions, and environmental constraints, especially when particles have complex shapes or are present at high concentrations.

Here, we investigate the transport of complex particles using microfluidic model systems. We first examine how particle shape influences transport dynamics in straight, confined channels, then explore the interactions of elongated particles with obstacles, which serves as a basis for analyzing fiber separation in pillar arrays. Finally, we address collective effects by studying the flow of gear-like particles through constrictions.
These findings offer new insights into the flow of complex particles in crowded environments, ranging from natural soils and the interior of cells to blood flow, and may enable advances in particle sorting and water treatment applications.

Hajime Tanaka *The University of Tokyo*
Title: Network-forming phase separation in soft matter
Phase separation is a fundamental process that governs the spatial organization of soft and biological matter. While conventional phase separation typically leads to droplet formation and coarsening via mechanisms such as Marangoni effects, an alternative pathway—viscoelastic phase separation (VPS)—can produce interconnected network or porous structures, particularly in systems with strong asymmetry in component mobilities, a common feature in soft materials.
In this study, we explore network-forming phase separation in colloidal suspensions and report a previously unrecognized coarsening law for VPS, where the characteristic domain size grows as $\ell \sim t^{1/2}$. In suspensions with short-range attractions, phase separation is often arrested, forming colloidal gels that retain mechanical stress—especially at low volume fractions—where the arrest is primarily mechanical rather than purely dynamical. We also identify an alternative, stress-free gelation pathway, where a stable network forms without residual stress.
Furthermore, we examine the conditions under which self-similar coarsening emerges in VPS. Specifically, we explain its absence in uncharged polymer solutions and its presence in complex coacervates, which are solutions of oppositely charged polymers.
These findings enhance our understanding of the physical mechanisms underlying network formation in phase-separating soft matter and provide new design principles for developing porous and field-responsive materials with applications spanning from materials science to biology.

PROGRAM TABLE

Sunday 28/09	
16:00 to 19:00	Registration
19:00 to 21:00	Welcome Reception (Thalassa Restaurant & Bar at the Venue)

Monday 29/09

08:15 to 08:45	Opening Ceremony
08:45 to 09:30	Plenary Talk *(Room 1)* **Eugenia Kumacheva,** University of Toronto *"Biomimetic fibrillar hydrogels: from mechanical properties to applications"* Chair: Michael Rubinstein
	COFFEE BREAK

	Room 1	Room 2	Room 3	Room 4
	Active Matter Chair: Jérémie Palacci	**Interfaces, Surfaces, Membranes, Emulsions** Chair: Halim Kusumaatmaja	**Polymers and Networks** Chair: Costantino Creton	**Fluid Dynamics and Rheology** Chair: Dmitry Fedosov
09:50 to 10:20	*Scale-free bacteria turbulence* **ERIC CLEMENT** ESPCI PARIS PSL	*Chemically active interfaces: a route to enhance and control catalysis* **PAOLO MALGARETTI** HI-ERN	*Using phase separation to fabricate porous hydrogels* **ROBERT STYLE** ETH ZÜRICH	*Transition to turbulence in conduits with compliant walls* **VISWANATHAN KUMARAN** INDIAN INSTITUTE OF SCIENCE
10:20 to 10:40	*Locomotion of Active Polymerlike Worms in Porous Media* **ANTOINE DEBLAIS** UNIVERSITY OF AMSTERDAM		*Hydrogels as functional group carriers for selective sensing applications* **ALEXANDER SOUTHAN** MAX PLANCK INSTITUTE FOR INTELLIGENT SYSTEMS	*Flow of non-Brownian suspensions under power ultrasound* **ANNIE COLIN** ESPCI PARIS PSL
10:40 to 11:00	*Unraveling the mechanics of the FtsZ ring during bacterial cell division* **FELIX WODACZEK** INSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA	*Curvature-dependent adsorption of surfactants in water nanodroplets and nanobubbles* **FABIO STANISCIA** JOŽEF STEFAN INSTITUTE	*Associative phase separation in single-step polyelectrolyte complex coatings* **MARTIJN DE HEER KLOOTS** WAGENINGEN UNIVERSITY	*Inverse Leidenfrost impacting viscoplastic drops* **ANSELMO PEREIRA** MINES PARIS - PSL
11:00 to 11:20	*Magnetic control of bacterial turbulence* **JAAKKO TIMONEN** AALTO UNIVERSITY	*The stability of natural marine foams* **JULIETTE MICHAUD** CNRS ESPCI PARIS PSL	*Mechanical assessment of microfluidically-generated poroelastic microgel particles* **AUDE SAGNIMORTE** CNRS ESPCI PARIS PSL	*Complex Morphology on the Underside of a Leidenfrost-levitated Hydrogel Sphere* **LUIS DIAZ MELIAN VICENTE** IINSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA
11:20 to 11:40	*Odd Elasticity in Disordered Chiral Active Materials* **LEE CHENG-TAI** TEL AVIV UNIVERSITY	*Tuning Pore Size in Integral-Asymmetric, Isoporous Membranes via Bidisperse Diblock Copolymers* **XIE JIAYU** UNIVERSITY OF GÖTTINGEN	*Elastic heterogeneity governs spatial distribution of adsorbed molecules in a soft, porous crystal* **KOTA MITSUMOTO** UNIVERSITY OF TOKYO	*Preventing the sinking of a disk by leveraging the boundary jump phenomenon* **JAN TURCZYNOWICZ** UNIVERSITY OF WARSAW
11:40 to 12:00	*How Fluctuations Shape Collective Motion: Diffusive vs. Tumbling Dynamics of Flocks* **RUAIRÍ PHELAN** UNIVERSITY OF EDINBURGH	*Engulfment of microgels by membrane wrapping* **TANWI DEBNATH** FORSCHUNGSZENTRUM JÜLICH	*Harnessing Molecular Architecture for the Design of High-Performance Single-Ion Polymers in Energy Storage* **EMMANOUIL GLYNOS** UNIVERSITY OF CRETE & FORTH	*Importance of dissolved gas transfers around antibubbles* **JONAS MIGUET** UNIVERSITY PARIS CITE

LUNCH BREAK				
	Room 1	Room 2	Room 3	Room 4
	Active Matter Chair: Marisol Ripoll	**Interfaces, Surfaces, Membranes, Emulsions** Chair: Alesya Mikhailovskaya	**Polymers and Networks** Chair: Yumi Matsumiya	**Fluid Dynamics and Rheology** Chair: Viswanathan Kumaran
13:30 to 14:00	*Collective Motion and Hydrodynamic Instabilities in Surface-Confined Microswimmers* **JOAKIM STENHAMMAR** LUND UNIVERSITY	*Interfacial Stresses in Foams: From Microscale Film Dynamics to Macroscale Stability* **EMMANOUIL CHATZIGIANNAKIS** EINDHOVEN UNIVERSITY OF TECHNOLOGY	*Molecular Scope: watching macromolecular dynamics at solid-liquid interfaces at the single-chain level* **JEAN COMTET** CNRS ESPCI PARIS PSL	*Stokesian Processes: A Physics-Informed Probabilistic Machine Learning Framework for Stokes Flows* **JOHN MOLINA** KYOTO UNIVERSITY
14:00 to 14:20	*Novel active patterns emergent from nonreciprocal and transverse interactions* **HARTMUT LÖWEN** HEINRICH HEINE UNIVERSITY DÜSSELDORF	*Softening Effect of pNIPAM Microgels on Pickering Emulsions: Drop Deformation and Elasticity* **FRANK LOPEZ SANTIAGO RICKY** RWTH AACHEN UNIVERSITY	*Macroscopic membranes of carrageenan and self-assembling peptides* **NARJESS ABU AMARA** BEN GURION UNIVERSITY OF THE NEGEV	*Jets and waves in gelatin from a cavitation bubble* **OHL SIEW-WAN** UNIVERSITY OF MAGDEBURG
14:20 to 14:40	*Active disordered elastic networks: Collapse, swimming, and subdiffusion with application to chromatin dynamics* **RONY GRANEK** BEN-GURION UNIVERSITY OF THE NEGEV	*Silicone Nanofilament Coated Membranes for Membrane Distillation* **MARIANA SOSA** MAX PLANCK INSTITUTE FOR POLYMER RESEARCH		*Effect of surfactants on slide electrification of moving drops* **HANS-JÜRGEN BUTT** MAX PLANCK INSTITUTE FOR POLYMER RESEARCH
14:40 to 15:00	*Active Brownian dynamics in a configurable viscoelastic media* **SANATAN HALDER** IIT KANPUR	*Light-responsive coacervates for synthetic protocells* **NICOLAS MARTIN** UNIVERSITY OF BORDEAUX	*Understanding Poly(acrylic acid)-Lysozyme Association via Molecular Simulations across Different Conditions* **ANASTASSIA RISSANOU** NATIONAL HELLENIC RESEARCH FOUNDATION	*Prediction of non-linear oscillatory experiments by stress activated EVP models* **GABRIELE PAGANI** ETH ZÜRICH
15:00 to 15:20	*Encoding Persistent Random Walks in Self-Propelled Particles: Lévy, Run-and-Tumble, Self-avoiding, and Gaussian* **RAO VUTUKURI HANUMANTHA** UNIVERSITY OF TWENTE	*Bidirectional crystal growth and intermittent dynamics during confined evaporation of salty solutions* **UDDALOK SEN** WAGENINGEN UNIVERSITY	*Hyper-Auxeticity and the Volume Phase Transition of Polymer Gels* **ANDREA NINARELLO** CNR-ISC, UOS SAPIENZA	*Quantifying the asymmetric viscoelastic response of dense PNIPAM suspensions subjected to heating and cooling temperature ramps* **SONALI KAWALE** RAMAN RESEARCH INSTITUTE
15:20 to 15:40	*Isotropic-nematic transition of 3D active semiflexible filaments* **TWAN HOOIJSCHUUR** UNVERSITY OF AMSTERDAM	*Switchable cavitation in soft matter* **WEI WANG** CNRS ESPCI PARIS PSL	*Exploring the static and dynamical properties of ultra-polydisperse linear polymer solutions* **NAOYA YANAGISAWA** UNIVERSITY OF TOKYO	*Bidispersity-driven tuning of mechanical properties in capillary suspension gels* **AHMED JARRAY** UNIVERSITY OF TWENTE

COFFEE BREAK				
	Room 1	Room 2	Room 3	Room 4
	Active Matter Chair: Harmut Löwen	**Interfaces, Surfaces, Membranes, Emulsions** Chair: Emmanouil Chatzigiannakis	**Polymers and Networks** Chair: Anastassia Rissanou	**Fluid Dynamics and Rheology** Chair: Ravi Prakash
16:00 to 16:20		*Unraveling the Molecular Origins of Slippery Behavior in Tethered Liquid Layers* **DAVI LAZZARI** SAPIENZA UNIVERSITY OF ROME	*Homogeneous and Heterogeneous Cluster Formation in Mixtures of Ester and Hydroxy-Terminated cis-1,4-Polyisoprene Chains in Natural Rubber* **TAKASHI TANIGUCHI** UNIVERSITY OF KYOTO	*Flow or deformation: Timescale competition between medium relaxation time and suspension structuring under oscillatory flow* **SEBASTIAN GASSENMEIER** KU LEUVEN
16:20 to 16:40	*Swimming on curved interface* **IAROSLAVA GOLOVKOVA** INSTITUTE OF SCIENCE AND TEHCHNOLOGY AUSTRIA	*Unravelling the multiscale surface mechanics of soft solids* **NICOLAS BAIN** INSTITUT LUMIERE MATIERE	*Neutron Investigations on the Structure and dynamics of ring-linear polymer blends* **DIETER RICHTER** FORSCHUNGSZENTRUM JÜLICH	*Slip and electrostatics of polyacrylic acid microgels in hydroalcoholic systems* **ANDREIA SILVA** UNIVERSITY OF EDINBURGH
16:40 to 17:00	*Analyzing Active Nematic Dynamics: Transition from 3D to 2D Structures and Self-Assembly Processes* **VERGÉS MARC** UNIVERSITY OF BARCELONA	*pH-Responsive Colloidal Gates for Tunable Liquid and Molecular Transport* **GIDEON ONUH** TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY	*Vitrimer-like Behavior in Main-Chain Poly(ionic liquid) Elastomers via Anion-Tuned Crosslinking* **TAKAICHI WATANABE** OKAYAMA UNIVERSITY	*Rheofluidics: single-drop oscillatory rheology with microfluidics* **MATTEO MILANI** PMMH ESPCI PARIS
17:00 to 17:20	*Self-organization of FtsZ filaments drives enzyme transport in bacterial division* **FERDINAND HORVATH** INSTITUTE OF SCIENCE AND TECHNOLOGY AUSTRIA	*Heterogeneous decoration of ionic mesopores by ionic and poly(ionic) liquids* **JULIAN OBERDISSE** CNRS UNIVERSITY OF MONTPELLIER	The Phase Stability of Interpenetrated Dual Polymer Networks with Orthogonal Reversible Bonds **CHRISTOPH SCHNECK** MATERIALS PHYSICS CENTER SAN SEBASTIAN	*Cross-Stream Focusing of Soft Capsules in a Square-Wave Microfluidic Channel* **OTHMANE AOUANE** FORSCHUNGSZENTRUM JÜLICH
17:20 to 17:40	*Designing responsive inks for multi-material reconfigurable microrobots via 2PP* **XUETING SHEN** ETH ZÜRICH	*In situ monitoring of soil removal from contaminated model fabric films* **JAMES BARCLAY** DURHAM UNIVERSITY	*Mechanochemical Molecules to Understand Crack Initiation in Soft Polymer Networks* **COSTANTINO CRETON** ESPCI PARIS PSL	*Fluid flow in 3-dimensional porous granular systems shows power law scaling with Minkowski functionals* **DUTTA TAPATI** St. XAVIERS COLLEGE KOLKATA
17:40 to 18:00	*Swirling and Directed Swarm Assembly due to Misaligned Perception-Dependent Motility* **MARISOL RIPOLL** FORSCHUNGSZENTRUM JÜLICH	*Controlled Anisotropy in Bicontinuous Emulsions for Passive Cooling* **GEERT SCHULPEN** UNIVERSITY OF UTRECHT	*Effects of elasticity on phase separation in polymer networks* **PETER OLMSTED** GEORGETOWN UNIVERSITY	*Sequence-programmable and mechanically tunable DNA hydrogels* **ILIYA STOEV** KARLSRUHE INSTITUTE OF TECHNOLOGY
18:00 to 20:00	Poster Session 1 (Athina Hall)			

Tuesday 30/09

08:45 to 09:30 — Plenary Talk *(Room 1)*

Daniela Kraft, Leiden University
"Autonomous life-like behavior emerging in active and flexible microstructures"
Chair: Hans-Jurgen Butt

Coffee Break

	Room 1	Room 2	Room 3	Room 4
	Colloidal Matter Chair: Antonio Puertas	**Biological and Living Matter** Chair: Jasna Brujic	**Experimental & Computational Methods (Including AI)** Chair: Roberto Cerbino	**Glasses, Granular, Jamming** Chair: Marco Laurati
09:50 to 10:20	*Demixing and intertwined double networks: a design concept based on network architectures* **EMANUELA DEL GADO** GEORGETOWN UNIVERSITY	*Invasion of bacteria in complex fluids and environments* **ARNOLD MATHIJSSEN** UNIVERSITY OF PENNSYLVANIA	*The Countoscope: Quantifying Dynamics by Counting Particles in Boxes* **SOPHIE MARBACH** CNRS SORBONNE UNIVERSITY	*Self-organization and emergence of memory in a cyclically driven model of amorphous plasticity* **MUHITTIN MUNGAN** UNIVERSITY OF COLOGNE
10:20 to 10:40	*Diffusion and flow in complex fluids* **KAROL MAKUCH** POLISH ACADEMY OF SCIENCES	*Non-universality of Jamming in Cellular Monolayers* **JASMIN DI FRANCO** UNIVERSITY OF VIENNA	*Analyzing the Effect of Noise on Static and Dynamic Results from Total Internal Reflection Microscopy (TIRM)* **PETER LANG** FORSCHUNGZENTRUM JÜLICH	*Generating ultra-stable glasses by homogenizing the local virial stress* **FABIO LEONI** SAPIENZA UNIVERSITY OF ROME
10:40 to 11:00	*Complex Diffusion of colloidal Tracers within ordered and disordered Arrays of Micropillars* **ANDREA DE MARCO** UNIVERSITY OF PADOVA	*A Monte Carlo Approach to Simulating Cell Dynamics and Cancer Development* **MATEUSZ JAKIELASZEK** UNIVERSITY OF WARSAW	*Dynamical and structural signature of the glass transition in soft colloids* **BARBARA RUZICKA** SAPIENZA UNIVERITY OF ROME	*Kovacs-like memory effect in a sheared colloidal glass: role of non-affine flows* **MAITRI MANDAL** RAMAN RESEARCH INSTITUTE
11:00 to 11:20	*Impact of surface asperities on shear rheological properties of a particle laden interface* **LUKAS WOOLLEY** ETH ZÜRICH	*Emergent Mechanics of a networked multivalent protein condensate* **ZHITAO LIAO** HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY	*Hydrodynamic fluctuations in sedimenting colloids* **MAXIME LAVAUD** UNIVERSITY OF VIENNA	*Supercritical density fluctuations and structural heterogeneity in supercooled water-glycerol microdroplets* **IASON ANDRONIS** STOCKHOLM UNIVERSITY
11:20 to 11:40	*Experimental investigation of chiral and entropic interactions induced on self-assembly of cellulose nanocrystals (SCNCs)* **RACHEL YERUSHALMI-ROZEN** BEN-GURION UNIVERSITY OF THE NEGEV	*The Effects of Electric Fields on Protein Phase Behavior and Protein Crystallization Kinetics* **MAHNOUSHOLSADAT MADANI** HEINRICH HEINE UNIVERSITY DÜSSELDORF	*Measuring electric charging and discharging of individual aerosol particles with optical tweezers* **ANDREA STOELLNER** INSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA	*Charged Rod-Glasses in non-Equilibrium Shear Flow Response* **KYONGOK KANG** FORSCHUNGSZENTRUM JÜLICH
11:40 to 12:00	*Circular finger pattern from a slowly drying colloidal droplet* **ANDREAS HENNIG** NORWEGIAN UNIVERSITY OF SCIENCE & TECHNOLOGY	*The dark side of the Moon: biomolecular condensates from the perspective of nucleic acids* **GIULIANO ZANCHETTA** UNIVERSITY OF MILAN	*Photon correlation methods using MHz hard X-ray FEL radiation* **JOHANNES MÖLLER** EUXFEL	*Rheology of Curved Rods and Applications in Biological Systems* **HOLLY BRIDGE** UNIVERSITY OF EDINBURGH

Lunch Break

	Room 1	Room 2	Room 3	Room 4
	Colloidal Matter Chair: Emanuela del Gado	**Biological and Living Matter** Chair: Benoit Loppinet	**Experimental & Computational Methods (Including AI)** Chair: Safa Jamali	**Glasses, Granular, Jamming** Chair: Muhittin Mungan
13:30 to 14:00	*DNA mediated colloidal interactions, beyond the simple duplex* **ETIENNE DUCROT** CNRS UNIVERSITY OF BORDEAUX	*Forces and symmetry breaking of a living meso-swimmer* **MATILDA BACKHOLM** AALTO UNIVERSITY	*Neural functionals in statistical mechanics* **FLORIAN SAMMÜLLER** UNIVERSITY OF BAYREUTH	*Criticality of the viscous to inertial transition near jamming in non-Brownian suspensions* **SARAH HORMOZI** CORNELL UNIVERSITY
14:00 to 14:20	*Exploring the phase diagram of soft permeable non-spherical particle suspensions* **MERT BAHÇECI EKREM** EINDHOVEN UNIVERSITY OF TECHNOLOGY	*Motor-protein-driven intracellular transport: An example of glassy dynamics?* **CHRISTOFFER ÅBERG** UNIVERSITY OF GRONINGEN	*Accelerating particle-scale numerical simulations via convolutional neural networks* **MICHEL ORSI** POLYTECHNIC UNIVERSITY OF TURIN	*Modelling the flow-induced anisotropy of the mechanical response of concentrated suspensions* **PAPPU ACHARYA** CNRS UNIVERSITY GRENOBLE ALPES
14:20 to 14:40	*Self-Organization of Magnetic Rod Suspensions in Oscillating Fields* **JORGE DOMINGOS** UNIVERSITY OF LATVIA	*Engineered bacterial cell-cell adhesion for down-stream separation* **HANNAH JOHNS** UNIVERSITY OF EDINBURGH	*Physically motivated mesoscale approaches for the predictive mechanical design of dynamic elastomers and gels* **ROBERT WAGNER** BINGHAMTON UNIVERSITY	*New Insights into PNIPAM Microgel Behaviour: The Role of Crosslinker Density and Particle Softness* **ROBERTA ANGELINI** SAPIENZA UNIVERSITY OF ROME
14:40 to 15:00	*Light-responsive amphiphilic polymeric nanoparticles* **LOMAN TESSA** EINDHOVEN UNIVERSITY OF TECHNOLOGY	*Rules for chromosome segregation in spherical cells* **VALERIO SORICHETTI** INSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA	*Inferring effective interactions from the structures of active Brownian particles* **CLARE REES-ZIMMERMAN** UNIVERSITY OF OXFORD	*Slow out of equilibrium dynamics in soft colloidal glasses: the role of gravity* **ALESSANDRO MARTINELLI** UNIVERSITY OF MONTPELLIER
15:00 to 15:20	*Dynamics of Particle Assembly in Evaporating Droplets* **YANG JUNYU** THE UNIVERSITY OF EDINBURGH	*A multiscale coarse-graining approach for the description of charge effects in antibody solutions* **PETER SCHURTENBERGER** LUND UNIVERSITY	*Python-JAX-based Fast Stokesian Dynamics with Neural Networks* **JOOST DE GRAAF** UNIVERSITY OF UTRECHT	*Hollow microgels: From single particle characterization to bulk behavior* **LEAH RANK** SAPIENZA UNIVERSITY OF ROME
15:20 to 15:40	*Unraveling Molecular Motion in Crowded and Supercooled Aqueous Solutions* **FOIVOS PERAKIS** STOCKHOLM UNIVERSITY	*Interaction of the Parkinson's-Related Intrinsically Disordered Protein α-Synuclein with Differently Charged Biomembranes* **IRINA APANASENKO** FORSCHUNGSZENTRUM JÜLICH	*Phase-field simulations elucidate bijel formation mechanism during solvent transfer-induced phase separation* **JESSE STEENHOFF** UNIVERSITY OF UTRECHT	*Structural Signatures of Mechanical and Thermal Activation in Amorphous Matter* **JOERG ROTTLER** UNIVERSITY OF BRITISH COLUMBIA

Coffee Break

Tuesday 30/09/2025

	Room 1	Room 2	Room 3	Room 4
	Colloidal Matter Chair: Rachel-Yerushalmi-Rozen	**Biological and Living Matter** Chair: Arnold Mathijssen	**Experimental & Computational Methods (Including AI)** Chair: Joost de Graaf	**Glasses, Granular, Jamming** Chair: Annie Colin
16:00 to 16:20	*In situ structural characterization of silica-pNIPAM particles at an air-water interface using contrast variation* **JUSTUS STAMMLER FELIX** LUND UNIVERSITY	*Quantifying Flexible Defect Excitation in Sharply Bent DNA* **QIYUAN QIU** CITY UNIVERSITY OF HONG KONG	*Generative BigSMILES: an extension for polymer informatics, computer simulations and ML/AI* **GERVASIO ZALDIVAR** NEW YORK UNIVERSITY	*On the local alignment and anisotropy of stresses in disordered granular media* **GUPTA AASHISH** UNIVERSITY OF EDINBURGH
16:20 to 16:40	*Challenging Classical Nucleation Theory: A Rigorous Falsifiability Test* **CAMILLA BENEDUCE** SAPIENZA UNIVERSITY OF ROME	*Continuity of short-time dynamics crossing the liquid–liquid phase separation in charge-tuned protein solutions* **TILO SEYDEL** ILL GRENOBLE	*In Silico Prediction of Multi-Component Functional Material Formulations via Machine Learning Coupled with Molecular Simulation* **MASUGU HAMAGUCHI** KEIO UNIVERSITY	
16:40 to 17:00	*The end of the hard sphere nucleation discrepancy?* **LARS KÜRTEN** CNRS ESPCI PARIS PSL	*Self-organization and memory in randomly driven disordered materials* **DAMIEN VANDEMBROUCQ** CNRS ESPCI PARIS PSL	*Interpretable machine-learning enhanced parametrization methodology for Pluronics-Water Mixtures in DPD simulations* **NUNZIA LAURIELLO** POLYTECHNIC UNIVERSITY OF TURIN	*Microscopic structure and dynamics of shear-thinning suspensions of polydisperse, repulsive vesicles* **PAOLO EDERA** CNRS ESPCI PARIS PSL
17:00 to 17:20	*Self-assembled porous media from particle-stabilized emulsions and evaporation-driven assembly of colloidal films* **JENS HARTING** HELMHOLTZ INSTITUTE ERLANGEN-NÜRNBERG	*Understanding and mimicking cryopreservation of living cells: in situ observation of freezing of lipid vesicles* **JEUDY PIERRE** ESPCI PARIS PSL	*Study of Polymer Nanocomposites Through Simulations and ML Methods: From Atoms to Macroscopic Properties* **VAGELIS HARMANDARIS** CYPRUS INSTITUTE	*Effects of particle angularity on the self-organisation of inter-granular cells* **DOMINIK KRENGEL** TOKYO UNIVERSITY OF MARINE SCIENCE AND TECHNOLOGY
17:20 to 17:40	*Dynamic Magnetic Response of Multicore Magnetic Nanoparticles: Influence of Shape Anisotropy* **SOFIA KANTOROVICH** UNIVERSITY OF VIENNA	*How macromolecular crowding shapes bivalent binding and cooperativity* **SVYATOSLAV KONDRAT** UNIVERSITY OF STUTTGART	*Combined methods rheo-spectroscopy: rheo-IR development and examples* **CHRISTOPHER KLEIN** POLYMERIC MATERIALS, ITCP, KIT	*Self-Assembly of Charged Granular Matter under Acoustic Levitation* **SUE SHI** INSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA
17:40 to 18:00	*Controlling curvature of self-assembling surfaces via patchy particle design* **ANDRAŽ GNIDOVEC** INSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA	*How does mucus rheology affect mucociliary clearance?* **ALICE BRIOLE** AIX MARSEILLE UNIVERSITY	*Optimizing the Fabrication of Isoporous Block Copolymer Membranes by coupled Particle-based and Continuum Modelings* **GREGOR HÄFNER** UNIVERSITY OF GÖTTINGEN	*Topology of Knitting: Marginal Constraints and Knittability* **DAISUKE S. SHIMAMOTO** THE UNIVERSITY OF TOKYO
18:00 to 20:00	Poster Session 1 (Athina Hall)			

Wednesday 01/10

08:45 to 09:30 — Plenary Talk *(Room 1)*

Lucio Isa, ETH ZÜRICH
"The Past, Present and Future of Capillarity-Assisted Particle Assembly (CAPA)"
Chair: Guruswamy Kumaraswamy

Coffee Break

	Room 1	Room 2	Room 3	Room 4
	Active Matter Chair: Laura Alvarez	**Biological and Living Matter** Chair: Damien Vandembroucq	**Polymers and Networks** Chair: Peter Olmsted	**Liquid Crystals and Anisotropic Matter** Chair: Rao Vutukuri
09:50 to 10:20	*Swimming E. coli power the rotation of symmetric discs* **JEREMIE PALACCI** INSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA	*Tricks from Ticks: Phase Transitions and Adhesive Behavior of Intrinsically Disordered Tick Salivary Protein* **SIDDHARTH DESHPANDE** WAGENINGEN UNIV.	*Polyethylene and Polypropylene Take Different Routes to Microplastic Formation* **GURUSWAMY KUMARASWAMY** IIT BOMBAY	*Hierarchical Self-assembly of Simple Hard Polyhedra into Complex Mesophases* **MARJOLEIN DIJKSTRA** UNIVERSITY OF UTRECHT
10:20 to 10:40	*Memory effects for the trapping of the phototactic microalga Chlamydomonas reinhardtii within light patterns* **RAPHAËL JEANNERET** UNIVERSITY PARIS CITE	*Transmission of Mechanical Shear Signals in the Epithelial Layer* **SHAHAR NAHUM** BEN GURION UNIVERSITY OF THE NEGEV	*Molecular Simulations of Crazes in Glassy Polymers under Cyclic Loading* **JOERG ROTTLER** UNIVERSITY OF BRITISH COLUMBIA	*The assembly of chiral ureido-pyrimidinone-based supramolecular polymers* **DAVID ATTIA** EINDHOVEN UNIVERSITY OF TECHNOLOGY
10:40 to 11:00	*Bacterial motility during the early-stage of interaction with surfaces functionalized with nano-antimicrobics* **MARCO LAURATI** UNIVERSITY OF FLORENCE	*Harnessing Shape Fluctuations to Probe the Mechanics of Stress Granules in Live Cells* **HALIM KUSUMAATMAJA** UNIV. OF EDINBURGH	*Explore hard-to-measure properties of hydrogel with freezing experiments* **YANXIA FENG** ETH ZÜRICH	*Origin of chirality in the cholesteric phase of virus suspensions* **ERIC GRELET** CNRS - UNIVERSITY OF BORDEAUX
11:00 to 11:20	*Active bacterial baths in droplets* **CRISTIAN VILLALOBOS** UNIVERSITY OF BORDEAUX	*Modifying the mechanical properties of self-assembled filaments by engineering EspA bacterial protein* **RONEN BERKOVICH** BEN GURION UNIV.	*Phase separation in elastic polymer networks* **TAKAHIRO YOKOYAMA** LEIBNIZ INSTITUTE OF POLYMER RESEARCH	*Spontaneous Chiral Symmetry Breaking in Polydisperse Achiral Near-Rigid Nematogens* **RIK WENSINK** CNRS LABORATORY OF SOLID-STATE PHYSICS
11:20 to 11:40	*Polymer dynamics in active nematic turbulence* **TYLER SHENDRUK** UNIVERSITY OF EDINBURGH	*Water in soft confinement of lipidic mesophase* **YANG YAO** UNIVERSITY OF BASEL	*Exploring the role of defects in polymer networks formed by star polymers through simulations* **SAYAM BANDYOPADHYAY** LEIBNIZ INST. POLYM. RES.	*Entropy stabilized form chirality in curved rod nematics: structure and symmetries* **EDWARD SAMULSKI** UNIVERSITY OF NORTH CAROLINA
11:40 to 12:00	*Mortal vs immortal filaments: emergent properties* **JURAJ MÁJEK** INSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA	*Unraveling oleosome interfacial behavior for controlled release of lipophilic cargos* **KETAN GANAR** TU EINDHOVEN	*Understanding the increased failure toughness of double network hydrogels* **SUZANNE FIELDING** DURHAM UNIVERSITY	*Polymer-stabilized topological solitons formed by low-power light beam in a dye-doped chiral nematic liquid crystal* **DARINA DARMOROZ** YEREVAN STATE UNIVERSITY

Lunch Break

	Room 1	Room 2	Room 3	Room 4
	Active Matter Chair: Eric Clément	**Biological and Living Matter** Chair: Giuliano Zanchetta	**Polymers and Networks** Chair: Robert Style	**Liquid Crystals and Anisotropic Matter** Chair: Eric Grelet
13:30 to 13:50	*How do motile cells navigate soft and complex confinement?* **AYUSHI BHATT** WAGENINGEN UNIVERSITY & RESEARCH	*Hidden reticulum of compressed and non-cycling cells reveals epithelial sub-criticality* **LIAV DARAF** BEN GURION UNIVERSITY OF THE NEGEV	*Complex coacervation in complex environments* **ANDREA GIUNTOLI** UNIVERSITY OF GRONINGEN	*Field-Controlled Self-Assembly and Reconfiguration in Multiferroic Liquid Crystalline Colloids* **HAJNALKA NÁDASI** OTTO VON GUERICKE UNIVERSITY
13:50 to 14:10	*Dynamical self-assembly of active dipolar colloids into active string fluid and active networks* **SARA JABBARI FAROUJI** UNIVERSITY OF AMSTERDAM	*Cytoplasmic Viscosity and Diffusion: Implications for mRNA Translation and Vaccine Delivery* **KARINA KWAPISZEWSKA** POLISH ACADEMY OF SCIENCE	*Knots in polymer molecules under Couette & Poiseuille flow* **MAURICE P. SCHMITT** UNIVERSITY OF MAINZ	*Shaping nematic order in bacterial films with single-cell resolution patterning* **MATTHIAS LE BEC** ETH ZÜRICH
14:10 to 14:30	*Active membrane deformations of a synthetic cell-mimicking system* **DMITRY FEDOSOV** FORSCHUNGSZENTRUM JÜLICH	*DNA packing in viral capsids* **JURE DOBNIKAR** CHINESE ACADEMY OF SCIENCE	*Non-universal feature of nonlinear rheological behaviour of unentangled polymer melts* **YUMI MATSUMIYA** UNIVERISTY OF OSAKA	*Flexible, photonic films of surfactant-functionalized cellulose nanocrystals for pressure and humidity sensing* **DIOGO SARAIVA** UNIVERSITY OF UTRECHT
14:10 to 14:50	*Microbial bioconvection mitigates nutrient limitation via enhanced active flows* **SOUMITREE MISHRA** UNIVERSITY OF LUXEMBOURG	*Physical mechanisms of peptide-mediated inhibition in alpha-synuclein aggregation* **IOANA M. ILIE** UNIVERSITY OF AMSTERDAM	*Branches, Tie Chains and Entanglements in Bimodal Polyethylene Single Crystals under Uniaxial Tensile Strain* **HENDRIK MEYER** INSTITUT CHARLES SADRON, CNRS	*Liquid Crystal Elastomer Kirigami* **IRINA MALINA STRUGARU** INSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA
14:50 to 15:10	*Emergence of a vortex lattice in anisotropic active flow under confinement* **OLGA BANTYSH** UNIVERSITY OF BARCELONA	*Experimental and Computational Studies of Kinetoplast DNA* **ALEXANDER KLOTZ** CALIFORNIA STATE UNIVERSITY	*Lipase-polymer Conjugates: Synthesis and Catalytic Activity* **KELLY VELONIA** UNIVERSITY OF CRETE	*Ferromagnetism and Ferroelectricity in Nematic Colloidal Systems* **ALEXEY EREMIN** OTTO VON GUERICKE UNIVERSITY
15:10 to 15:30	*Morphological characterization of Microorganisms by Static Light Scattering* **LUIS F. ROJAS-OCHOA** CINVESTAV -NATIONAL POLYTECHNIC INSTITUTE	*Friction modifies poroelasticity of a yeast clog* **OLIVIER LIOT** NATIONAL POLYTECHNIC INSTITUTE OF TOULOUSE	*The role of charge regulation in MANOprotein adsorption* **CHRISTIAN HOLM** UNIVERSITY OF STUTTGART	*Magnetic control of driven colloids dispersed in liquid crystals* **JOEL TORRES-ANDRÉS** UNIVERSITY OF BARCELONA
15:30 to 17:00	Poster Session 2 (Athina Hall)			
	Coffee Break (Athina Hall)			

Thursday 02/10

08:45 to 09:30 — Plenary Talk *(Room 1)*

Matthieu Wyart, EPFL Lausanne
"From the glass transition to creep flows"
Chair: Peter Schurtenberger

Coffee Break

	Room 1	Room 2	Room 3	Room 4
	Colloidal Matter Chair: Ramon Castaneda-Priego	**Interfaces, Surfaces, Membranes, Emulsions** Chair: Michael Kappl	**Biological and Living Matter** Chair: Siddharth Deshpande	**Active Matter** Chair: Rao Vutukuri
09:50 to 10:20	*Gauge invariance of statistical mechanics* **JOHANNA MÜLLER** UNIVERSITY OF BAYREUTH	*Elastic Microphase Separation Produces Bicontinuous Materials* **CARLA FERNANDEZ-RICO** *ETH ZÜRICH*	*Electrochemical regulation of pH-feedback mechanisms of enzyme reactions confined within lipid* **PAUL BEALES** UNIVERSITY OF LEEDS	*Active particles in tunable crowded environments* **IVO BUTTINONI** HEINRICH-HEINE UNIVERSITY OF DÜSSELDORF
10:20 to 10:40	*Star-like thermos-responsive microgels: a new class of soft colloids* **EMANUELA ZACCARELLI** CNR INST. COMPL. SYS	*Understanding the stability of Pickering emulsions using on-chip microfluidics* **XUEFENG SHEN** WAGENINGEN UNIVERSITY & RESEARCH	*Elastic Response of Streamer Biofilms to Reversible Flows* **MICHAL CZEREPANIAK** UNIVERSITY OF WARSAW	*Critical role of the motor density and distribution on polar active polymers* **MARISOL RIPOLL** FORSCHUNGSZENTRUM JÜLICH
10:40 to 11:00	*Softness dictates the rheology of small colloids* **NIKOLAOS ATHANASIOS BURGER** LUND UNIVERSITY	*Controlling the partitioning of binary particle mixtures in bijels for high-capacity lithium-ion batteries* **LIN WEI-CHE** UTRECHT UNIVERSITY	*Substrate heterogeneity as a driver of cancer cell dissemination* **ZUZANA DUNAJOVA** INSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA	*Active Colloids in 3d: Travelling Strings, Shaking Labyrinth and Novel Crystal Excitations* **PATRICK C. ROYALL** ESPCI PARIS PSL
11:00 to 11:20	*Tuning the structure and dynamics of colloidal gels with polymer brush coatings.* **ROB CAMPBELL** NORTHEASTERN UNIVERSITY	*Structure and polymer dynamics in one component polymer nanocomposites (OCNC)* **MARGARITA KRUTEVA** FORSCHUNGSZENTRUM JUELICH	*Giant Unilamellar Vesicle Conformation Membrane Stability: alpha-amylase mediated starch hydrolysis* **RAJNI KUDAWLA** INDIAN INST. OF SCIENCE EDUCATION & RES. MOHALI	*Autophoresis near permeable surfaces* **GÜNTHER TURK** PRINCETON UNIVERSITY
11:20 to 11:40	*Work Hardening in Colloidal crystals* **ILYA SVETLIZKY** HARVARD UNIVERSITY	*Understanding the effect of Hevea brasiliensis latex particle size on interfacial and mech.nical properties* **MARION BAUDOIN** INSTITUT CHARLES SADRON		*Active colloidal assembly* **PETER SCHALL** UNIVERSITY OF AMSTERDAM
11:40 to 12:00	*Force cessation in micro-rheology of hard colloids: Simulations and theory* **ANTONIO PUERTAS** UNIVERSITY OF ALMERIA	*Temperature-driven mass transport at the nanoscale* **MATTEO BESSEGA** UNIVERSITY OF INSUBRIA	*Influence of Crowders and Ligands on the Polymeric Properties of G-Quadruplex Multimers* **DENIZ MOSTARAC** UNIVERSITY OF VIENNA	*Kinetics of phase transition in nonreciprocal mixtures of passive and chemo-phoretically active particles* **MANISHA MANISHA** INDIAN INST, SCIENCE EDUCATION & RESEARCH

Lunch Break

	Room 1	Room 2	Room 3	Room 4
	Colloidal Matter Chair: Patrick C. Royall	**Interfaces, Surfaces, Membranes, Emulsions** Chair: Julian Oberdisse	**Biological and Living Matter** Chair: Paul Beales	**Active Matter** Chair: Peter Schall
13:30 to 14:00	*Optothermal growth of 2D colloidal quasicrystals* **ROBERTO PIAZZA** POLYTECHNIC UNIVERSITY OF MILAN	*Amphiphile-like stabilizers for water-in-water emulsions* **ALESYA MIKHAILOVSKAYA** CNRS	*Material-fungi interactions* **PETER FISCHER** ETH ZÜRICH	*Designing run and tumble dynamics of active lipid vesicles* **LAURA ALVAREZ** UNIVERSITY OF BORDEAUX - CRPP, CNRS
14:00 to 14:20	*Data Driven Inference of Colloidal Interactions* **PETER VAN OOSTRUM** BOKU UNIVERSITY	*How phospholipids stabilize macro and nanoemulsions?* **KEVIN ROGER** CNRS, UNIVERSITY OF TOULOUSE	*Cell shape through the eyes of geometry processing* **MAU ROJAS** INSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA	*How to model frictional contacts in sheared and active colloids?* **KAY HOFMANN** JOHANNES GUTENBERG UNIVERSITY OF MAINZ
14:20 to 14:40	*Dynamics and phase behaviour of quasi - 2D dispersions* **GERHARD NÄGELE** FORSCHUNGSZENTRUM JÜLICH	*Evaporation Induced Destabilization of Oil-in-Water Emulsion* **SANKET KUMAR** KU LEUVEN	*Effect of 2D confinement and substrate properties on bacterial self-organization at surfaces* **VINCENT HICKL** EMPA, MATERIALS SCIENCE & TECHNOLOGY	*Defect formation in an expanding ensemble of spinners* **ANDREJS CĒBERS** UNIVERSITY OF LATVIA
14:40 to 15:00	*Probabilistic memory outperforms deterministic memory in a Szilard engine with restrictions* **BASAK PRITHVIRAJ** SIMON FRASER UNIVERSITY	*The role of hydration and electrostatics in salt crystal growth* **ADYANT AGRAWAL** UNIVERSITY OF STUTTGART	*Unsteady flow effects in cilia-mediated transport* **RAFAŁ BŁASZKIEWICZ** UNIVERSITY OF WARSAW	*The effects of knot topology on the collapse of active polymers* **DAVIDE BREONI** UNIVERSITY OF TRENTO
15:00 to 15:20	*Stochastic size control of self-assembled filaments* **HUEBL MAXIMILIAN** INSTITUTE OF SCIENCE AND TECHNOLOGY AUSTRIA	*Intermittency and dynamical regimes in concentrated emulsions under Rayleigh-Bénard thermal convection* **ANDREA SCAGLIARINI** CNR-IAC INSTITUTE FOR APPLIED MATHEMATICS	*DNA-Programmable Emulsions* **JASNA BRUJIC** NEW YORK UNIVERSITY	*Does chemotaxis enhance target search by active Brownian particles?* **VLADIMIR RUDYAK** TEL AVIV UNIVERSITY
15:20 to 15:40	*A closer look on bicelles using scattering, ab initio modelling and molecular dynamics* **ALEXANDROS KOUTSIOUMPAS** FORSCHUNGSZENTRUM JÜLICH	*Melting of non-reciprocal solids: how dislocations propel and fission in flowing crystals* **STÉPHANE GUILLET** INSTITUTE OF SCIENCE & TECHNOLOGY AUSTRIA	*A new perspective on lung surfactant inactivation and possible treatments* **NOVAES-SILVA MARIA CLARA** ETH ZÜRICH	*Fluctuation Dissipation Relations for Active Field Theories* **MARTIN KJØLLESDAL JOHNSRUD** MAX PLANCK INSTITUTE OF DYNAMICS AND SELF-ORGANIZATION GOTTINGEN
Coffee Break				

Thursday 02/10/2025

	Room 1	Room 2	Room 3	Room 4
	Colloidal Matter Chair: Gerhard Nagele	**Interfaces, Surfaces, Membranes, Emulsions** Chair: Svyatoslav Kondrat	**Biomedical & Food Applications** Chair: Habibi Mehdi	**Experimental & Computational Methods (Including AI)** Chair: Peter Lang
16:00 to 16:20	*Making and Breaking Colloidal Gels by Mechanochemistry* **ANDRIJ PICH** RWTH AACHEN UNIVERSITY	*Matrix viscoelasticity decouples bubble growth and mobility in coarsening foam* **ANNIINA SALONEN** ESPCI PARIS PSL	*Biopolymers based ROS- and GSH- responsive nanocarriers for the delivery of therapeutics* **ANITHA ETHIRAJAN** HASSELT UNIVERSITY	*Introduction of new rotational mini rheometer for scarce sample* **PAVLIK LETTINGA** FORSCHUNGSZENTRUM JÜLICH
16:20 to 16:40	*Optimizing ATP-like energy delivery in synthetic nanomachines via path reweighing and automatic differentiation* **MAXIMILIAN LECHNER** INSTITUTE OF SCIENCE & TECHNOL. AUSTRIA	*Stabilizing thin films from rupture using salt* **VICTOR ZIAPKOFF** CNRS LABORATORY OF SOLID-STATE PHYSICS	*3D bioprinted complex constructs for enhanced osteogenic and anti-osteoclastogenic potential* **MARIA CHATZINIKOLAIDOU** UNIV. OF CRETE & FORTH	*Advanced extensional rheometry on a rotational rheometer platform* **JOERG LAEUGER** ANTON PAAR GERMANY
16:40 to 17:00	*Unravelling and controlling crystallization pathways of colloidal cube superstructures* **DILLIP KUMAR MOHAPATRA** EINDHOVEN UNIVERSITY OF TECHNOLOGY		*Deciphering the organelle-targeting specificity of inducible amphipathic helices through a recombinant protein platform* **PETER CHUNG** UNIVERSITY OF SOUTHERN CALIFORNIA	*Physical mechanisms of MetaParticle-membrane interaction* **MASSIMILIANO PAESANI** UNIVERSITY OF AMSTERDAM
17:00 to 17:20	*Real-space investigation of aging dynamics in Laponite colloidal gels* **SHUNICHI SAITO** UNIVERSITY OF TOKYO	*Mechanisms of polymeric nanoparticle self-assembly in thin films* **C. K. SARIKA** CENTRE DE RECHERCHE PAUL PASCAL (CRPP- CNRS)	*Biomimetic lipid – based lubrication for therapeutic solutions in Osteoarthritis* **DI JIN** WEIZMANN INST. SCIENCE	*Dynamics of Systems with Many Immiscible Fluids* **MICHAEL RENNICK** UNIVERSITY OF EDINBURGH
17:20 to 17:40	*Intelligent Microrobots Made from Colloidal Assemblies* **MINGHAN HU** ETH ZÜRICH	*Synergistic effect of PIP2 and PIP3 on membrane-induced phase separation of integrin complexes* **HSU CHIAO-PENG** TECHNICAL UNIVERSITY OF MUNICH	*Quantification of exogenous mRNA translation and degradation at single-cell and population level* **JAROSŁAW MICHALSKI** INSTITUTE OF PHYSICAL CHEMISTRY - POLISH ACADEMY OF SCIENCES	*Machine Learning many-body potentials for charged colloidal suspensions* **THIJS TER RELE** UTRECHT UNIVERSITY
17:40 to 18:00	*Dielectrophoretic directed assembly of quantum plates for quantum color conversion in micro-displays* **YANNICK HALLEZ** UNIVERSITY OF TOULOUSE	*Interaction between marbles in a soap film* **YOUNA LOUYER** UNIVERSITY OF RENNES	*Cationic Degradable Polyesters with pH- and Salt-Responsive Behavior and Tunable UCST in Aqueous Media* **MARIA KALIVA** FORTH	*Bayesian Design of Hydrophobic Bio-Based Foams* **KOUROSH MOBREDI** AALTO UNIVERSITY
18:00 to 19:00	Poster Session 2 (Athina Hall)			
20:00	Conference Dinner			

Friday 03/10

09:10 to 09:55 — Plenary Talk *(Room 1)*

Anke Lindner, University Paris Cité
"Transport dynamics of confined particles: from complex shapes to collective effects"
Chair: Peter Fischer

Coffee Break

	Room 1	Room 2	Room 3	Room 4
	Colloidal Matter Chair: Rob Campbell	**Interfaces, Surfaces, Membranes, Emulsions** Chair: Anniina Salonen	**Biomedical & Food Applications** Chair: Ivo Buttinoni	**Fluid Dynamics and Rheology** Chair: Paolo Malgaretti
10:15 to 10:45	*Evolution of depletion forces during thermodynamic quenching and heating processes* **RAMON CASTAÑEDA-PRIEGO** UNIVERSITY OF GUANAJUATO	*Unveiling the role of wall transparency in wetting and capillary phenomena* **SVYATOSLAV KONDRAT** STUTTGART UNIVERSITY & ICHF PAN	*3D Printable Aqueous Two-Phase Systems for Tissue Engineering* **EVDOKIA STEFANOPOULOU** RWTH AACHEN UNIVERSITY	*How do glasses yield?* **THOMAS VOIGTMANN** GERMAN AEROSPACE CENTER
10:45 to 11:05	*Surface Charged Polymeric Micelles - A model system to switch between steric and electrostatic interactions* **JÖRG STELLBRINK** FORSCHUNGSZENTRUM JÜLICH	*Hollow polymeric particles as opacifying agents for TiO2 replacement in coatings* **CONSTANTINA SOFRONIOU** LOUGHBOROUGH UNIVERSITY	*Assessment of lipid nanoparticles as carriers for magnetic resonance imaging contrast agents* **DOROTA FLAK** NANOBIOMEDICAL CENTER POZNAN	*Nanorheology of Magnetic Nanogels* **IVAN NOVIKAU** UNIVERSITY OF VIENNA
11:05 to 11:25	*Probing cage dynamics in concentrated hard sphere suspensions and glasses with high frequency rheometry* **THANASIS ATHANASIOU** FORTH		*Tuning Cellulose Microfibrill Containing Plant-Protein Gels by Shear* **LENNARD SCHULTE** UNILEVER	*Rolling, sliding and trapping of driven particles in square obstacle lattices* **ARIN E. ORTIZ** UNIVERSIDAD AUTONOMA DE MADRID
11:25 to 11:45	*Examining the micromechanics of rough colloidal gels* **SAVANNAH GOWEN** ETH ZÜRICH	*Swelling-induced patterning in soft microchannels* **HAOLIN LI** NANYANG TECHNOLOGICAL UNIVERSITY	*Tuning β-lactoglobulin /lactoferrin complex coacervate properties via solvent quality modification* **GHAZI BEN MESSAOUD** INRAE, INSTITUT AGRO, UMR STLO	*Boost, Contraction and Bands of Emulsion Flow* **MATTEO PIERNO** UNIVERSITY OF PADOVA
11:45 to 12:05	*Bridging advection and diffusion in the encounter dynamics of sedimenting marine snow* **LISICKI MACIEJ** UNIVERSITY OF WARSAW	*Droplet Impact and Spreading on Superhydrophobic/ Superamphiphobic Surfaces with Re-entrant* **NAN GAO** UNIVERSITY OF BIRMINGHAM	*Structuring the meat-like structures in plant-based meat analogues: A comprehensive multiscale study by small angle scattering* **TONG GUAN** ETH ZÜRICH	*Elucidating the Physical Mechanisms of Foam Cleaning Efficiency* **LÉO HENRY** INSTITUT CHARLES SADRON
12:05 to 12:25	*Molecular Simulation of Dielectric and Assembly Properties in Grafted Nanoparticle–Polymer Nanocomposites* **TAKUMI SATO** KEIO UNIVERSITY	*Shear-Rate Dependence of the Surface Tension of Glass- Forming Fluids* **HEITMEIER LINNEA** GERMAN AEROSPACE CENTER	*Breaking the Law (of Darcy): Espresso Flow at High Pressure* **MARIA PUCIATA-MROCZYNSKA** UNIVERSITY OF WARSAW	*Linear Viscoelasticity of Dilute Solutions of Semiflexible Polymers* **J. RAVI PRAKASH** MONASH UNIVERSITY

Friday 03/10/2025

12:30 to 13:15	Plenary Talk *(Room 1)* **Hajime Tanaka,** University of Tokyo *"Network-forming phase separation in soft matter"* Chair: Emanuela Zaccarelli
13:15 to 13:45	Closing Ceremony
13:45 to 15:00	Lunch Break
End of Conference	

POSTERS

Poster Session 1

(Monday 29th Sept. & Tuesday 30th Sept.)

A. Active matter		
Nr	**TITLE**	**PRESENTER**
P1	*Propulsion of a chiral swimmer in a weakly viscoelastic fluid*	SHAKYA RUBY
P2	*Emergent dynamics of active elastic microbeams*	MARTINET QUENTIN
P3	*Tuning the run and tumble dynamics of active lipid vesicles*	WILLEMS VIVIEN
P4	*Dynamic patterns formed in extensible chains due to follower activity*	SADHU SATTWIK
P5	*Confinement Effects on Algal Motility in Freestanding Soap Films*	EREMIN ALEXEY
P6	*Dynamics of a Chiral Active Granular Particle*	SHARMA SHUBHAM
P7	*Strong Confinement Effect on Sheared Puller-type Microswimmer Suspensions*	HAYANO HARUKI
P8	*Directed transport of active particles in an oscillating Channel.*	SINHA RAHUL
P9	*Shaping Phase Behavior in Active Rod Systems: Swarming, Flocking, Active Turbulence, and Jamming*	VUTUKURI HANUMANTHA RAO
P10	*Collective flow patterns in 2D self-propelled particle systems with constant average propelling velocity*	JIANG YONGLUN
P11	*Self-Propulsion Trajectories of Active Particles Under an External Magnetic Field*	VARMA MEGHA
P12	*Emergence of rotating clusters in active Brownian particles with visual perception*	CHANDRA RADHA MADHAB
P13	*Aerotactic response and magnetic control of magnetotactic bacterium (MSR-1)*	WU CHANGSONG
P14	*Resonances in odd viscoelastic materials*	KILN JULIUS
P15	*Spatiotemporal Organization of Active Matter Suspensions in Viscoelastic Medium: A Dissipative Particle Dynamics (DPD) Study*	KAPOOR SIMRAN
P16	*Collective dynamics of intelligent active Brownian particles with visual perception and velocity alignment in 3D: spheres, rods, and w orms*	LIU ZHAOXUAN
P17	*Collecting Particles in Confined Spaces by Active Filamentous Matter*	DEBLAIS ANTOINE
P18	*Transition of Bacterial Turbulence from Two to Three Dimensions*	PENG YI
P19	*Rolling at right angles: the dynamics of superparamagnetic active rollers*	FITZGERALD EAVAN
P20	*Field-driven reversible networks from colloidal rods*	FOJO VAZQUEZ JOSE ANTONIO
P21	*Cooperation and collective motion in binary mixture of active colloids*	ALVAREZ LAURA
P22	*Clustering of Active Particles in Tunable Colloidal Environments*	NOWBAGH ABHIMANYU
P23	*Multifunctional metal oxide membrane for simultaneous oil-water separation and contaminant degradation*	KRISHNAN P SANTHRA
P24	*Pairwise interaction between a pair of pushers at fluid-fluid interface*	MISHRA RISHISH
P25	*Non-equilibrium dynamics and emergent phases in an active colloidal ice*	BAILLOU RENAUD
P26	*Collapse transition of attractive tangentially-driven active polymers*	PARAGE BAPTISTE
G. Glasses, Granular, Jamming		
P27	*Emergent mechanics of a random network of elastic ribbons*	ONO MIZUKI
P28	*Rheology of Curved Rods and Applications in Biological Systems*	BRIDGE HOLLY
P29	*Contact charging with levitated particles: widening the scope with two new charge measurement techniques*	FELBER MARKUS
P30	*Effect of Ultrasound on the Shear Thickening Transition of Corn Starch Suspension*	WANG AOXUAN
P31	*Programming torsional buckling in meta-shells*	HABIBI MEHDI
P32	*Supercritical density fluctuations and structural heterogeneity in supercooled water-glycerol microdroplets*	ANDRONIS IASON

B. Biological and living matter		
P33	*Density-Dependent State Transitions and Active Flow in an Actomyosin System*	KASHIWABARA TOMOKA
P34	*Multi-scale self-organization of active cytoskeletal prototissue*	NEUMANN LUKAS JANIK
P35	*Coarse-grained simulations of lge1 1-80 peptide*	JOHNSON AGAYA
P36	*Bacterial sedimentation: Effects of activity?*	NAM HYORIN
P37	*A 3D bioprinted breast cancer model for drug screening*	ZORBA IOANNA
P38	*Microbial navigation and ecology in flow networks*	TAO RAN
P39	*Tuning the binding selectivity in molecular recognition, targeting and activation*	DOBNIKAR JURE
P40	*Biofunctionalized nanocomposite bioinks with anti-Nogo-A antibody for enhanced bone regeneration*	PLATANIA VARVARA
P41	*Preliminary Comparative Analysis of Glioma Cell Survival Following FLASH Irradiation*	CHUCHAŁA PATRYCJA
P42	*Photophysical activity of curcumin-based gold nanoparticles: green synthesis and impact on toxicity on planktonic bacteria*	BASU SURITA
P43	*In silico evolving monomer structures for directional self-assembly*	KRSTIC MARIJA
P44	*Spatiotemporal patterns of membranes induced by surface molecular binding/unbinding*	NOGUCHI HIROSHI
P45	*Tracking Microorganisms in Complex Environments*	BAILLOU RENAUD
P46	*Where are the bulk lipids? a combined multiscale small angle scattering and computational study*	SEMERARO ENRICO FEDERICO
P47	*Self-assembly of Pluronic L121 copolymers in aqueous solutions and their role as encapsulating agents*	MUNAFÒ ISABELLA
P48	*Durable, thermally stable, plant-based moisture-protective wax coatings*	KRISHNAN P SANTHRA

BF. Biomedical & Food applications		
P49	*Utilization of Insoluble Proteins from Wet Processing of Coconut for Stabilization of Pickering Emulsions*	MURUGESAN SELVAKUMAR
P50	*Modern polysaccharide-based carriers for biomedical applications*	FELICZAK-GUZIK AGNIESZKA
P51	*Ordered mesoporous silica synthesized by the template-assisted approach as a platform for food additives delivery*	WAWRZYŃCZAK AGATA
P52	*Biobased viscoelastic materials for lung tissue engineering*	OVERZET LOUISE
P53	*A double-layered skin analogue with antimicrobial activity*	GIALOURI AIKATERINI

C. Colloidal matter		
P54	*Hierarchical Colloidal Assemblies from Crossed Electric and Magnetic Fields*	BARROS INDIRA
P55	*Training Depletion Colloidal Gels: Strengthening Through Oscillatory Shear*	CHRYSOULAKI VASILIKI
P56	*Ultrasound-induced softening in depletion colloidal gels*	CHRYSOULAKI VASILIKI
P57	*Effects of Dispersion and pre-shear on the Rheological Behavior of Needle shaped Clay Dispersions*	MEKKAT NARAYANAN MALAVIKA
P58	*Induced self-assembly of gold nanoparticles by depletion interactions*	ZEHARIA TAL
P59	*pH induced liquid-liquid phase separation of gliadin*	ROOPESH P.
P60	*Electrostatic, depletion, and structural interactions of ions and nanoparticles across confined dispersions: Theory and comparison to AFM force-measurement*	GIDEON ONUH
P61	*Tunable colloidal manipulation using critical Casimir forces and torques*	KONDRAT SVYATOSLAV
P62	*Line-tension dominated morphology of colloidal heterodimers*	VERMEULEN KOEN
P63	*Quantitative 3D Real-Space analysis of Photonic Supraparticles*	BÜCKMANN JESSE
P64	*Unravelling and controlling crystallization pathways of colloidal cube superstructures*	MOHAPATRA DILLIP KUMAR
P65	*Soft polydisperse particles expand after strong compression*	S. SHIMAMOTO DAISUKE

P66	*Self-assembly and thermal conductivity of nanofluids containing Janus particles*	IKEDA TAKAHIRO
P67	*Effect of soft boundaries on Taylor dispersion*	MCGRAW JOSHUA
P68	*A colloidal viewpoint on the sausage catastrophe and the finite sphere packing problem*	DIJKSTRA MARJOLEIN
P69	*Controlling the microstructure of colloidal gels through ultrasound activated bubbles*	RONIGER MATTHEW
P70	*Ordered Mesoporous Carbon/Graphene from Methane and Well-Ordered 3D-Structured Catalysts*	CAMPANELLA LAURA
P71	*Rheological bi-stability in colloidal depletion gels with granular inclusions*	XU HUADAN
P72	*Colloidal Gels tuned with magnetic field*	MATHIOUDAKIS MANOLIS
P73	*Linear and nonlinear rheology of colloidal suspensions via Brownian Dynamics simulations*	ASLANIS DIMOS
P74	*High pressure effects on the kinetics and gel properties of Laponite suspensions*	BURGER NIKOLAOS ATHANASIOS
P75	*Reversible electric-field-induced collapse of viscoelastic properties in colloidal gels*	LÓPEZ LUQUE JOSE
P76	*Simulations of sheared stiff core models.*	MELROSE JOHN RICHARD
P77	*Many-Body Contact Forces in Microgel Suspensions*	VRBAN FRAN IVAN
P78	*Nematic Ordering of Colloidal Rods within Flexible Vesicles*	MATIAS ANDRE
P79	*Depletion Interactions in metastable colloidal systems*	RAMON CASTAÑEDA PRIEGO
P80	*RheoOCT-imaging and depth-resolved scattering: novel in-process characterization to resolve gel formation*	SCHMID STEFAN
P81	*Ionic Strength and Crosslinking Density: Tuning pNIPAM Microgel Properties and Transition Temperatures*	K S SYAMJITH
P82	*Novel synthesis route and characterization of low polydispersity hydroxypropyl cellulose nanogels*	LEDESMA-MOTOLINÍA MÓNICA
P83	*Molecular dynamics simulation of Magneto-active elastomers*	SANTOS JÚLIO
P84	*Structure and rheology of cellulose nanocrystals from deep eutectic solvents*	TZEIRANIDI ANASTASIA SVETLANA
P85	*On the optimality of osmotic and phoretic transport in porous media*	DHAKAR JITENDRA

Poster Session 2

(Wednesday 1st Oct. & Thursday 2nd Oct.)

F. Fluid Dynamics and Rheology		
P86	*Athermal hard-sphere dense suspensions under general periodic shearing: can the loss tangent detect yielding?*	MIRCEA ALEX-OVIDIU
P87	*existence of a lubrication layer piloting the wall slip of dense, polymer microgel suspensions*	GUNNY MASOODAH
P88	*Exploring the competitive effects of hydrophobicity and electrostatics in determining rheology of dense microgel suspensions*	CHANDA SAYANTAN
P89	*Flow-Induced Margination: A Dissipative Particle Dynamics Approach*	YAMADA KAZUTAKA
P90	*Abnormal heat transport in quasi-one-dimensional solutions by molecular simulation*	HISAMOTO KENTA
P91	*Dissipative Particle Dynamics Study of Tribological and Flow Properties Induced by the Self-Assembly of Polymer-Grafted Nanoparticles Confined Between Polymer-Brushed Walls*	MORIOKA TAIGA
P92	*Microchip entrapment using Fluidic gripping*	FARMANI ZOHREH
P93	*Tuning the rheology of cementitious suspensions with ultrasound*	SAFANELLI NICOLLAS
P94	*Inferring Microstructural Characteristics from the Yielding Behavior of Jammed Suspensions*	GALLUZZI FRANCESCA
P95	*Pressure, concentration and temperature dependent dynamical investigation of relaxations associated with hydrogen bonding in 1-propanol*	TIWARI ANAND KUMAR
P96	*Shear thickening in golfball particle suspensions*	WINDBACHER NIKLAS
P97	*Dynamics and self-organization of lipid domains in pure DPPC monolayers*	OLIVA BENJAMIN
P98	*Visualising energy dissipation on superhydrophobic surfaces*	ASIF AQIB
P99	*Coffee Ring Effect ISMC2025*	SZPAK MICHALINA
P100	*experimental study of peristaltic flow in annular geometries with deformable boundaries*	SALACH SHAHAF ELLA
P101	*Rheomicroscopy of Hydrogels across the Yielding*	KHANDELWAL SAKSHI
P102	*Viscoelasticity and extensional rheology of polystyrene based vitrimers*	GUARINO TERESIANA
P103	*Extension and Scission of polymers under high shear rates in microfluidic chips*	ZHANG YUNPENG
P104	*Kneading as an efficient mixing method to enhance processability of graphite anode slurries*	LAPETA ANNA
P105	*Monovalent and Divalent Cation Transport in PEO Electrolytes: Role of Molecular Weight and Cation Chemistry*	PAPAMICHAIL CHRISOSTOMOS

I. Interfaces, surfaces, membranes, emulsions		
P106	*Development of Superhydrophobic and Antifouling Surfaces Utilizing Polymer Nanocomposites*	GOJDA FRANCESKA
P107	*No time for surface charge: how bulk conductivity can hide charge patterns from KPFM*	PERTL FELIX
P108	*Giant mobility of surface-trapped ionic charges following liquid tribocharging*	JEAN COMTET
P109	*Understanding Stress Recovery from Poly(Styrene-block-Butadiene-block-Styrene) Triblock Copolymer*	YADAV HARSHIT
P110	*Low-dimensional ionotronics: how classical models reveal new insights*	KONDRAT SVYATOSLAV
P111		
P112	*Enzymes at liquid interfaces: linking surface & catalytic activity with foam stability*	BAUDOIN MARION
P113	*Surface tension at the critical micelle concentration*	BLOKHUIS EDGAR
P114	*Microtribology on Soft Substrates: Sliding and Rolling Friction*	KUK KEUMKYUNG
P115	*How mixed-linkers transform fluid intrusion in MOFs*	MORENO-RODRIGUEZ DANIEL
P116	*The rheological perspective of phase transition in soft solids*	AGARWAL KALYANI

P117	*Functionalized octaspherosilicates and cyclosiloxanes as novel emulsifiers*	ANNA OLEJNIK
P118	*Understanding the Role of Particles in the Interfacial and Bulk Rheology of Pickering-Ramsden Emulsions*	KORKUT OYA ÇIçEK
P119	*Interface stabilization mechanisms: Insights from the Dynamic Thin Film Balance (DTFB) technique*	GOWTHAM VIDYASHANKAR MANASWINI
P120	*Binding Affinity Controls Ion Transfer in Tribocharging*	HOFFMAN JOHN
P121	*Electrokinetic Transport at Microfluidic Interfaces: From Electrowetting to SAW-Driven Double Layer Dynamics*	SU JIAN
P122	*Study of Giant Unilamellar Vesicles' Fluidity*	STOGIANNIDIS GEORGIOS
P123	*Role of cholesterol on structural and mechanical properties of lipid monolayer at the water-air interface*	KIM HYUNYOU
P124	*Enhancing porosity in supraparticles: A simulation study using spherical filler particles and rod-shape particles*	KRITIKA KRITIKA
P125	*i-Combisomes: a versatile platform for synthetic cell membranes*	PETROVSKII VLADISLAV
P126	*Mechanical Durability of Fluorinated and Non-Fluorinated Silicone-Based Polymer coatings*	VLASIADI MARIA
P127	*Development of Non-Fluorinated Superhydrophobic Polymer Coatings*	PETSI ERTA
P128	*Molecular Understanding of Soil-Fabric Interactions for Sustainable Textile Care*	SMITH LYDIA
	Unveiling the Structural Evolution of Lipid Liquid Crystalline Nanoparticles: The Role of Functionalization	GRZEGORZ NOWACZYK

M. Experimental & Computational Methods (including AI)		
P129	*Reverse mapping from DPD model to all-atom MD model of star polymer self-assembled structure*	OSATO NAOYA
P130	*Recognizing and generating knotted molecular structures by machine learning*	ZHANG ZHIYU
P131	*Unveiling force relaxation mechanisms in a protein-based hydrogel*	BECKER MATTAN

P. Polymers and Networks (including Sustainable Soft Matter)		
P132	*Thermal elasticity of disordered underconstrained systems*	LEE CHENG-TAI
P133	*Tuning the Rheology of PDMS Inks with Gelatin Hydrogels for Advanced 3D Printing*	COMANICI FLORINA-ELENA
P134	*Understanding Freeze-Fracture in Soft Model Hydrogels*	SCHERER MURIEL
P135	*Viscoelasticity of Vitrimer Melts and Solutions*	RUSSO ARCANGELA
P136	*Shear Induced Tuning of Mechanical Properties and Ionic Conductivity of Composite Polymer Electrolytes*	MACHAS ATHANASIOS
P137	*Synthesis and Characterization of Novel Polymeric Photoresists for Green Lithographic Processing*	MARKOZANNE GEORGIA
P138	*Dual pH- and Thermo- Responsive Poly(amido amine)s with a Critical Temperature in Aqueous Media*	PAPPAS GEORGIOS NIKOLAOS
P139	*Recyclable organogels from thermosetting polydimethylsiloxane with light-triggerable bonds*	LAZOU THOMAI
P140	*Development of novel environmentally-friendly photoresists for use in the semiconductor industry*	VASILAKIS ALEXANDROS
P141	*GelMA-based hydrogels as scaffolds for lung cancer cell cultures*	KARKANAKI MARIA
P142	*Topological Mixtures Based on Ring Polymers: Linear Viscoelasticity*	PEPONAKI KATERINA
P143	*Novel PEDOT-based Blends for Electronic Skin Applications*	CHATZAKI THALEIA-MICHAELA
P144	*Mechanochemical Recycling of Polyacylhydrazones via Selective Bond Cleavage in Aqueous Media*	VOUTSADAKIS DIMITRIOS

P145	*Investigation of Crystallization Kinetics in Poly(ethylene oxide)-based Nanocomposites utilizing Simultaneous Small- and Wide-Angle X-ray Scattering*	ATHANASAKI ANTONIA
P146	*Effect of Graphene Derivatives on the Self-Healing Efficiency of Polyurethane Nanocomposites*	GIANNAKAKI EVANGELIA
P147	*Shear-Induced Microstructural Evolution in Depletion Colloidal Gels: The Role of Attraction Range*	MEDDA ELISA
P148	*Colloidal Dopants as Defect Mediators: Hybrid Particle-Field Simulations of Defect Control in Lamellar Block Copolymers*	QIAO LE
P149	*Molecular Dynamics Study on the Formation and Mechanical Properties of Polymer-Grafted Nanoparticle Films*	UEDA TAISEI
P150	*PAINTing the nanoscale heterogeneities in supramolecular solvated networks*	PAPAIOANNOU ANNA
P151	*Self-Assembled Hierarchical Membranes of Hyaluronic Acid and Amphiphilic Peptides*	COHEN LIDOR
P152	*The Existence and Formation Dynamics of Supramolecular Chains in Equilibrated and Sheared Ring Polymer Melts*	GIESINGER NORA-ELEN
P153	*Synergistic Effects in PVOH-Pluronic Systems: A Study on Rheology and Thermal Behavior*	PANDA PRACHISHREE
P154	*Linking Microscopic Structure to Optical Properties in Soft Plasmonic Complexes*	SENNATO SIMONA
P155	*Mechanophore crosslinking effects in nominally brittle hydrogels*	OGILVIE CLAIRE
P156	*Protein-polysaccharide Complexes for Enhanced Food Supplement Delivery*	FANOVA ANASTASIIA
P157	*Standardized DNA Hydrogel Assembly for Programmable Delivery of Therapeutic Cargoes*	MERRICK CHRISTINE
P158	*Mechanistic insights into elastomer frictional wear using damage-reporting mechanophores*	JEAN COMTET
P159	*Hybrid Pectin-Fibroin Microgels with Supramolecular cross-links and its Inter-linking*	KAMARAJU GOKUL
P160	*Towards Sustainable Cleaning: Capillary Lifting Mechanism for Droplet Dewetting*	SUN KE
P161	*Analysis of fracture processes in starch blended composites with a core-shell phase separated structure*	YAMAGUCHI AKIHIRO
P162	*Biohydrogen and Bioplastics Production from Organic Waste*	KELLY VELONIA
P163	*Polyethylene and Polypropylene Take Different Routes to Micro/Nano-plastic Formation*	MANDAL AIHIKA
P164	*Cellulose based coatings from deep eutectic solvents: mechanical properties and topography*	ATHANASIOU THANASIS
P165	*Synergistic Effect of TiO2 and SiO2 Coatings on Radiative Cooling in Textiles: From Experimental and Theoretical Perspectives*	GHAZI RAYAN
P166	*Interplay between Crystallization and Crosslinking in Semicrystalline Polyester-Based Vitrimers*	SAALWAECHTER KAY
P167	*Bi-functionalization of L-Lysine with aromatic and aliphatic moieties converts it into a Super Organogelator in DMSO*	H SRUTHI