12th Liquid Matter Conference

Conference Booklet

22.- 27. SEP. 2024

MAINZ, GERMANY

JOHANNES GUTENBERG
UNIVERSITÄT MAINZ

MAX-PLANCK-INSTITUT
FÜR POLYMERFORSCHUNG

DFG

APS | Physical Review Journals

Springer

nature physics

Welcome

It is our pleasure to welcome you at the 12th Liquid Matter Conference in Mainz. The conference is jointly organised by the Liquids Section of the Condensed Matter Division of the European Physical Society, the Max Planck Institute for Polymer Research and the Johannes Gutenberg University Mainz. Previous conferences were held in Lyon (1990), Firenze (1993), Norwich (1996), Grenada (1999), Konstanz (2002), Utrecht (2005), Lund (2008), Vienna (2011), Lisbon (2014), Ljubljana (2017) and virtual (2021).

The purpose of the conference is to bring together scientists working on the liquid state of matter and closely related topics, such as soft matter and biophysics, and to discuss recent experimental, theoretical and applied advanced in the field. Over time, the topics represented at the Liquid Matter Conference have naturally and continuously changed as the field developed and diversified, which is just a sign of the active and evolving research field that 'Liquid Matter' still is. The most recent addition is the session on 'Liquid matter in energy, environmental and climate science', which we believe is inevitable given the current state of the climate problems. We hope this conference will contribute to the initiation of new ideas, initiatives and collaborations and strengthen existing ones.

The scientific program of the 12th Liquid Matter Conference consists of 1 prize lecture, 11 plenary lectures, 22 keynote lectures and 99 contributed oral presentations, which were selected by the International Programme Committee. As of 25 August, 379 poster contributions were submitted. At this meeting the 2024 EPS Liquid Matter Prize will be awarded for the 7th time. And we are delighted to announce that the recipient is Professor Julia Yeomans FRS OBE from the University of Oxford. She was awarded the Prize for her "For her pioneering role in developing models and algorithms to increase our understanding of a wide range of complex fluids and flowing biological matter" and will receive the prize and deliver her prize lecture on Wednesday 25th of September, preceding the conference dinner.

We gratefully acknowledge support from various organisations. In particular, we would like to thank the University of Mainz for letting us host the conference on their premises and the Max Planck Institute for Polymer Research for providing administrative support. We thank APS Physical Review Journals, Nature Physics and Springer for poster prizes and books and all the sponsors of the conference – the German Physical Society, SFBs and GRK – for their financial support.

Finally, we thank you for your participation and contributions to this conference and wish you an inspiring, productive and pleasant stay in Mainz.

Roel Dullens
Chair of the
Liquid Matter Board

Doris Vollmer
Chair of the
Local Organising Committee

Committee COM 01

General Information INFO 03

03 Registration and Conference Office
04 Travel and Venue
06 Presentation of Oral and Posters
09 Food and Drinks
10 Conference Dinner
13 Social Program
16 City Amenities
17 Emergencies
18 More

Plenary CV 19

Talks TALKS 43

Posters POST 67

Author Index INDEX 113

Venue Area Map MAP 128

Schedule 130

Liquid Matter Board

AT	Roberto Cerbino
FR	Cecile Cottin-Bizonne
NL	Roel Dullens | Chair
DE	Erwin Frey
CH	Lucio Isa
DE	Sabine Klapp
SP	Ignacio Pagonabarraga
GB	Susan Perkin
DE	Doris Vollmer

International Program Committee

FR	Patricia Bassereau
GB	Radha Boya
ES	Alberto Fernandez-Nieves
IT	Paola Gallo
DE	Christiane Helm
CZ	Pavel Jungwirth
AT	Christos Likos
FR	Teresa Lopez-Leon
FR	Frederic Restagno
GR	Dimitris Vlassopoulos

COM

Local Organization

Hans-Jürgen Butt
Burkhard Dünweg
Kurt Kremer
Friederike Schmid
Thomas Speck
Peter Virnau
Doris Vollmer | Chair

Registration and Conference Office

General Information

The conference office is located in the “Alte Mensa”/Atrium Maximum.
A message board will be located in the registration area. You can post your messages there. You can leave your bags at the reception 8:30 - 18:00.

Please wear your name badge throughout the conference. Your certificte of attendance will be issued upon request at the conference office.

Office Hours

Sun	09/22	17.00 – 20:30
Mon	09/23	08:00 - 18:00
Tue	09/24	08:30 - 18:00
Wed	09/25	08:30 - 18:00
Thu	09/26	08:30 - 18:00
Fri	09/27	08:30 - 14:00

Office Address

Alte Mensa/Atrium Maximum
Johann-Joachim-Becher-Weg 5
55128 Mainz

GPS
49.9939879, 8.245132

Travel and Venue

Venue

The conference will be held on the campus of the Johannes-Gutenberg University Mainz.

The conference takes place in:

"Alte Mensa"/Atrium Maximum
Registration, conference office, reception, posters

Tent in front of the "Alte Mensa"
Poster

Lecture hall RW 1
Plenary talks

N1, N2, N3 in the "Muschel"
Parallel sessions

A campus map is available on the pages of Mainz University.

Parking and Taxi

Please use public transport. You can enter the campus once by car. If you need a taxi dial 910 910 or ask the conference secretaries to give them a call.

Public Transport

The lecture halls are located at the east (or city) end of the university campus. From Hauptbahnhof/ Central Station you can either walk (roughly 20 minutes) or take public transport to the stop "Universität". You will see the campus entrance in front of you. Walk to the archway, cross it and turn left. The „Alte Mensa" is at the end of the parking lot.

Busline

From "Hauptbahnhof"

Tram line 51, 53 and 59
Bus line 6, 9, 54, 55, 56, 57, 58, 630

Tickets

A weekly ticket is provided in your conference package. It is valid in both Mainz and Wiesbaden.

Public Transport App

"öffi" (Android)
"ÖPNV Navigator" (IOS)

Presentation of Orals and Posters

Setup for Speakers

Speakers are requested to appear in their lecture hall at the beginning of their session.
It is also strongly recommended that you test the technical equipment beforehand. Typically, you will bring your own presentation laptop and connect it to the local data projector via a supplied HDMI cable.

You may however also choose to rather use one of the conference laptops, onto which you upload your presentation from a USB stick. Powerpoint presentations may have compatibility problems related to different versions of the program. Presentation is in PDF format do not face this problem.

Duration of Presentations

Plenary lectures
45 min incl. discussion

Keynote talks
25 min + 5 min discussion

Contributed talks
15 min + 5 min discussion

Session Chairs

Session chairs should arrive to the session room 15 minutes before the beginning of the session to meet speakers and assure that the presentations run smoothly. A student assistant is going to support you.

Session chairs introduce speakers. Please remind speakers when five minutes of presentation time remains. Sessions chairs stop the lecture when time is up and moderate the discussion after the presentation. At the end of discussion, the Session chairs assist the next presenter and introduce the next speaker.

Poster Presentation

The poster walls can accommodate standard A0 posters in portrait format. Width x height: 841 mm x 1189 mm. The poster areas are located in the "Alte Mensa"/Atrium Maximum and the tent in front of the Atrium. Fixing materials will be provided.
The poster walls will be available from Monday 10:00 on for mounting.

Posters from session 1 should be removed at latest by Wednesday 08:45, while posters from session 2 should be removed at latest by Friday 08:45.

Finger food and drinks will be provided during the evening sessions.

Meeting / Discussion Space

We have reserved the rooms RW5 and RW6 in ReWi (rooms one floor above the lecture hall) and the "Infobox" (small red building next to ReWi).

Poster Session Timings

Session Monday/Tuesday

09/23 11:30 - 12:40
09/24 17:10 - 20:00

Topics

Colloids
Biological fluids and liquid-liquid phase separation
Water, mixtures and solutions
Liquid matter in energy, environmental and climate science
Liquid crystals and anisotropic fluids

Session Wednesday/Thursday

09/25 11:30 - 12:40
09/26 17:30 - 20:00

Topics

Polymers, polyelectrolytes and biopolymers
Liquids in confinement, solid-liquid interfaces and wetting
Liquid interfaces, foams and emulsions
Ionic liquids, electrolytes and liquid metals
Supercooled liquids, glasses and gels
Active matter and driven systems

Program Changes

The most recent version of the program can be found on the conference web pages.
Changes are posted on the message board close to the registration area and on the doors to the lecture halls.

Food & Drinks

Coffee

Coffee, tea, refreshments and tea cakes will be served in front of the “Muschel”.

Lunch

For lunch, you will be provided with a payment card in credit card format loaded with 75 Euros of value. With that card, you wil be able to pay for food in all canteens (Mensa) on the university campus.
If you need more money for your lunch, you can top up the card yourself. Please return the card at the end of the conference as we have a 5 € deposit for each card.

Conference dinner

Event Information

Wednesday 19:30

Kurfürstliches Schloss
(Electoral Palace),
Peter-Altmeier-Allee 1, Mainz

Electoral Palace Mainz

The Electoral Palace in Mainz (German: Kurfürstliches Schloss zu Mainz) is the former city Residenz of the Archbishop of Mainz, who was also Prince-Elector of his electoral state within the Holy Roman Empire. Originally the Archbishop of Mainz resided at the cathedral, where there is an old private chapel dating from 1137.

But in 1475, when the Chapter re-elected Diether von Isenburg, conditions were imposed: he had to surrender the town of Mainz to the Chapter, and erect a castle in the city. After receiving damage during the second war with the margraves in 1552 the castle was restored in a Renaissance style. The building of a new palace commenced in 1627 on the behest of Archbishop Georg Friedrich von Greiffenklau. The Rhine wing of the new palace could not be finished until 1678. On 23 October 1792, the Jacobin Club, a political group during the French Revolution, was established on what nowadays is German soil. This was the earliest democratic movement in Germany. The last Elector of Mainz was expelled in the same year, and the palace was neglected until 1827, when it was restored by the Grand Duchy of Hesse-Darmstadt and the City of Mainz.

Modern Use

Today the east wing houses the Museum of Roman and Germanic History. An assortment of replicas and valuable original items presents a comprehensive picture of the cultural life of prehistoric times, of the Roman Empire, and of the early Middle Ages.

Picture 1: Karneval im Schloss: @ CC BY-SA 3.0 de
Picture 2: GNU-FDL, Wikipedia, Benutzer:Moguntiner

The north wing contains the famous function hall from which the annual Karneval TV show „Mainz bleibt Mainz, wie es singt und lacht“ is broadcast. Stylistically the Electoral Palace is one of the last examples of German Renaissance architecture.

Music by Sinfonietta Mainz e.V.

The orchestra sees itself as the successor orchestra to the almost 160-year-old Philharmonic orchestra Association Mainz and aims to continue its tradition. The repertoire includes classical works from the early Viennese Classical period, the Romantic period and the present day. The collaboration with choirs from Mainz enables the performance of great works such as Brahms Requiem, Beethoven 9th Symphony or Mahler 2nd Symphony.
The brass players of the large symphony orchestra Sinfonietta Mainz have set themselves the goal of bringing the rich chamber music literature for brass ensembles to a wider audience. Their repertoire includes works from the Renaissance, Baroque, of course by Bach, as well as works by modern composers.

Picture and more Information: www.sinfonietta-mainz.de

Social Program

If you are able to arrive a little earlier or stay a little longer, you may want to take part in our social program. However, it depends on the number of participants what we can organize. Therefore, we need to know whether you like to attend. You can pay for the city tours on Sunday when you register for the conference. We are only able to accept cash.

City tour - the golden Mainz

If this is your first visit to Mainz, you may want to learn about Mainz and its history. We offer guided tours of Mainz on Sunday (22nd) afternoon.
The tour includes a walk through the history of the city from its beginnings to the present day: the Romans, the cathedral and the old town. St. Martin's Cathedral with its „Cathedral Mountains" has shaped the cityscape of Mainz for 1000 years. The tour then takes you into the historic old town, to pretty half-timbered houses, picturesque corners and picturesque squares.

Sunday, 22nd	13:00 until 14:30
Sunday, 22nd	15:00 until 16:30
Friday, 27th	15:00 until 16:30

Meeting Point
Front yard of the cathedral at 12:45

Price per person
12 €

Mainz and its wines

On this tour, your senses will be sent on a journey as we walk through the city together and sample various wines and a sparkling wine from Rheinhessen. There will also be Rheinhessen snacks, such as “Spundekäse” and “Handkäs Tatar”.

Friday 27th 15:00 until 17:30

Meeting Point
Conference office at 14:30

Price per person
29€

Alternatively

If at least 20 people like to participate, we can offer a visit to a local winery with a walk through the vineyards. Followed by a wine tasting with wine, water, pretzels and “Spunde” Cheese. This we need to know soon. Date and time remain identical.

Picture: © Superbass / CC-BY-SA-4.0 (via Wikimedia Commons)

A tour through the ateliers of Mainz

If you are interested in arts, you might be interested in getting to know well-known and emerging artists. A tour of individual studios, from the old town to the new town, where art lovers can experience how Mainz artists work and hear anecdotes from the creative scene!

Friday 27th 16:00 until 18:00

Meeting Point
Conference office at 15:30

Price per person
24 €

Experience democracy - from the birth of democracy to modern Mainz

The “Experience democracy” tour, takes a closer look at the places where the Mainz Republic was founded. We will visit places where you can learn about the influences of Napoleon, the first German Republic and the great freedom movement of 1848 on the democracy movement within Mainz and throughout Germany.

Friday 27th 15:00 until 17:00

Meeting Point
Conference office at 14:30

Price per person
25 €

City Amenities

Shopping

Mainz offers an attractive city center with numerous shopping possibilities.
Nearly all bigger stores are open from 10:00 to 20:00 hrs, Monday through Saturday.
Sundays all shops are closed.
All major credit cards are accepted.

Cash

ATMs (cash dispensers) are available at most of the banks in downtown Mainz; often they are accessible 24 h/day.

Emergencies

Medical Assistance
Telefon Number

110	**Police**
112	**Fire Brigade** Any kind of emergencies
116, 117	**Medical Assistance** Non urgent character
+ 496131379111	**Conference Office** In urgent cases of serious nature within the conference venue

Pharmacy

Hartenberg-Apotheke,
Dr.-Martin-Luther-King-Weg 20,
55122 Mainz (1.3 km)
06131/38 73 33

Dijon Apotheke, Dijonstr. 26 ,
55122 Mainz-Münchfeld (1.2 km)
+49 6131 31408

More

Photographs

Pictures will be taken during the event, with the purpose of being posted on the local intranet of the MPI for Polymer Research, but also for news coverage and for our own memories.
We are going to send the link around to the website, where you can download selected photos after the conference.
No posting will occur before October 1, 2024. In case you do not wish you photographs to appear on these media, please send an e-mail to the organizers beforehand.

LMC2024@mpip-mainz.mpg.de

Lost & Found

A lost and found service will be available at the conference office.

Lost or stolen credit card?

0049 69 97 97-1000	American Express
0800-071-3542	MasterCard
0800-811-8440	Visa
116 116	EC Card

Smoking policy

Smoking is prohibited inside all buildings. If you like to smoke, you are kindly requested to do this outside the building.

EPS Liquid Matter Prize 2024

Active nematics: A new approach to mechanobiology?

Julia M. Yeomans

The Rudolf Peierls Centre for Theoretical Physics
Clarendon Laboratory, Parks Road, Oxford, UK

Lecture by Julia M. Yeomans

Active materials such as bacteria, molecular motors and eukaryotic cells continuously transform chemical energy taken from their surroundings to mechanical work.
Dense active nematics show meso-scale turbulence, the emergence of chaotic flow structures characterised by high vorticity and self-propelled topological defects. I shall discuss examples where the physics of active nematics is of relevance to biological processes.

About

Julia Yeomans is Professor of Physics at the University of Oxford. She obtained her MA and DPhil in Physics from Oxford and then spent two years as a post-doc at Cornell University. She returned to the UK, as a Lecturer at the University of Southampton, before joining the Rudolf Peierls Centre for Theoretical Physics. Julia applies techniques from theoretical and computational physics to problems in soft condensed matter and biophysics. Her ERC grant Actbio: Exploiting the Parallels between Active Matter and Mechanobiology has just started. She has four daughters and enjoys hiking and orienteering.

Direct observation of non-classical crystallization pathways in binary colloidal systems

Lecture by Stefano Sacanna

Department of Chemistry , New York University
New York, USA

In this talk, I will present groundbreaking insights into the non-classical nucleation and growth pathways of crystals explored through an innovative colloidal model system composed of optically transparent, oppositely charged particles. This approach has allowed us to probe these complex mechanisms with an unprecedented level of detail, illuminating alternative nucleation routes such as two-step nucleation and cluster aggregation. It has also led to the discovery of a new type of crystal structure previously unobserved in colloidal systems, without any known counterpart in nature.

Classical theories of crystal nucleation and growth often fall short in explaining the diverse phenomena observed in experimental systems. This talk addresses this gap by demonstrating that these alternative pathways can lead to novel and unexpected crystal structures, thus providing a bridge between theoretical predictions and practical observations.

The implications of our findings extend across materials science, offering new strategies for material design and synthesis that leverage non-classical growth principles.

About Stefano Sacanna

Stefano Sacanna graduated in Chemistry from the University of Bologna and obtained his Ph.D. (cum Laude) in Physical and Colloid Chemistry from Utrecht University in the Netherlands. In 2008 he joined the Center for Soft Matter Research at New York University as a postdoctoral fellow. In 2013 he moved to the Molecular Design Institute at NYU where he is currently a full Professor in the Department of Chemistry. His research interests include synthesis and design of colloidal model systems, self-assembly, nanostructured and active materials. He has received numerous awards and prizes including the National Science Foundation CAREER Award, the Human Frontiers Science Program Young Investigator Award, the American Physics Society Early Career Award for Soft Matter Research, and the 2022 Falling Walls award.

Physics of biological condensates

Lecture by Frank Jülicher

Max-Planck Institute
for the Physics of Complex Systems
Dresden, Germany

Many membraneless organelles in cells are biochemical compartments that form via the condensation of specific proteins together with RNA. Such condensation can be recapitulated in Vitro, where protein droplets form by phase separation from buffer solution. Protein condensates are complex fluids with variable material properties. I will provide an introduction to biological condensates and highlight general aspects of the physics of protein phase separation and its regulation by chemical components. The cell interior can be viewed as an emulsion, where emulsion droplets position biochemical processes in space. In order to explore how condensates can organize chemical processes in cells, we study the interplay of chemical reactions and phase separation. This work reveals that chemically active droplets can exhibit a rich phenomenology and unconventional behaviours. Finally, protein condensates exhibit interesting rheological behaviours. Micro-rheology of protein droplets shows that the material properties of protein condensates are those of a visco-elastic fluid that is well described by a Maxwell model. However, material properties can depend on age of the material. This suggests that condensates that harden over time exhibit glassy behaviours. We call these materials Maxwell glasses.

About Frank Jülicher

Frank Jülicher studied Physics at the University of Stuttgart and RWTH Aachen University. He did his PhD work at the Institute for Solid State Research at the Research Center Jülich and received his PhD in 1994 from the University of Cologne. His postdoctoral work at the Simon Fraser University in Vancouver and the Institut Curie and ESPCI in Paris was followed by a CNRS research position at the Institut Curie in Paris in 1998. Since 2002, he is a Director at the Max Planck Institute for the Physics of Complex Systems in Dresden and a professor of biophysics at the Technical University of Dresden. His research interests are theoretical approaches to active matter and the spatiotemporal organization of cells and tissues.

A computational perspective on supercooled water

Lecture by Pablo Debenedetti

Dept. of Chemical and Biological Engineering Princeton University, Princeton, NJ 08544, USA

The preponderance of experimental evidence is consistent with the existence of a metastable first-order transition between two liquid phases in supercooled water [e.g., 1-3]. Computer simulation has played a major role in defining the frontiers of knowledge in this area [4].

Results from a broad range of computational and theoretical approaches, including molecular dynamics [5], free energy calculations [6,7,8], the theory of critical phenomena [5], density functional theory [8,9] and machine learning [8,9], support the existence of a metastable critical point in supercooled water. This has important consequences for the observed behavior of ordinary, stable liquid water at ambient conditions.

[1] K.H. Kim et al., Science 2017, 358, 1589

[2] K.H. Kim et al., Science 2020, 370, 978

[3] J. Bachler et al., PNAS 2021, 118, e21081944118

[4] J.C. Palmer et al., Chem. Rev. 2018, 118, 9129

[5] P.G. Debenedetti et al., Science 2020, 369, 289

[6] J.C. Palmer et al. Nature 2014, 510, 385

[7] F. Sciortino et al., J. Chem. Phys. 2024, 160, 104501

[8] T.E. Gartner et al., Phys. Rev. Lett. 2022, 129, 255702

[9] T.E. Gartner et al., PNAS 2020, 117, 26040

About Pablo Debenedetti

Pablo Debenedetti is the Class of 1950 Professor in Engineering and Applied Science, Emeritus, at Princeton University. His research interests include the thermodynamics and statistical mechanics of liquids and glasses, the theory of hydrophobicity, the theory of nucleation, and chirality phenomena in liquids. He is the author of more than 300 scientific articles and one book, Metastable Liquids. His awards include the Rahman Prize in Computational Physics from the American Physical Society, the Hildebrand Award in the Theoretical and Experimental Chemistry of Liquids from the American Chemical Society, and the Professional Progress, Walker, Institute Lecture and Alpha Chi Sigma Awards from the American Institute of Chemical Engineers. Pablo Debenedetti is a Fellow of the American Institute of Chemical Engineers, the American Association for the Advancement of Science, and the American Physical Society, and a member of the National Academy of Engineering, the National Academy of Sciences, and the American Academy of Arts and Sciences.

Statistical physics for climate sciences: Application to wave turbulence, extreme heat waves, and extremes of renewable energy production

Lecture by Freddy Bouchet

Laboratoire de Météorologie Dynamique
Département de géosciences de l'ENS, France 24
Paris, France

Climate changes impacts, its mitigation, and adaptation will change deeply many aspects of our society. Physicists can contribute decisively to the related science. Indeed, the theoretical aspects of climate sciences are a new and highly multidisciplinary field, with contributions from statistical physics, mathematics, data and computer sciences, as well as hydrodynamics and turbulence. Research In this field are performed at the forefront of many contemporary subjects connected to statistical physics:
effective dynamics, inference of stochastic processes, of causality relations, their connection with machine learning, large deviation theory, to cite just of few examples.

In this talk I will discuss several examples where statistical physics and large deviation theory can be useful to solve fundamental problems for climate dynamics. The first example will be the kinetic theory of wave turbulence. Wave turbulence plays an important role for atmosphere/ocean physical exchanges and for mixing of the ocean interior. I will explain how large deviation theory allows to extend this classical theory to compute effects of typical and rare spontaneous fluctuations. A large part of the

talk will be dedicated to extreme heat waves. Extreme events or transitions between climate attractors are of primarily importance for understanding the impact of climate change. Recent extreme heat waves, with huge impact, are striking examples. However, they cannot be studied with conventional approaches, because they are too rare and realistic models are too complex. We will discuss several new algorithms, based on rare event simulations developed in physics, and machine learning for stochastic processes, which we have specifically designed for the prediction of heat waves.

The results shed new light on the fluid mechanics processes which leads to these events: quasi-stationary patterns of turbulent Rossby waves that lead to global teleconnection patterns. At the end of the talk, I will briefly outline current projects where we use the same tools to study extremes of renewable energy production and their connection with climate dynamics. Those rare events are key for the future of the European electricity system.

About Freddy Bouchet

Freddy Bouchet is a theoretical physicist and climatologist. He is leading the Climate and Statistical Mechanics group at Laboratoire de Météorologie Dynamique (LMD/IPSL) at Ecole Normale Supérieure (ENS/PSL) in Paris. This group aims at

1. Studying climate dynamics phenomena, specifically related to rare and extreme events: heat-waves, droughts, tipping points, and extremes climate events related to the resilience of the electric system.
2. Developing algorithms aimed at computing rare events in complex dynamical systems, like climate dynamics or turbulent flows, based on large deviation theory and statistical mechanics.
3. Studying fundamental questions in statistical mechanics, kinetic theory, and dynamical systems theory, often using large deviation theory, bridging from mathematical physics to turbulence and climate applications.

Since 09/2022 : Directeur de recherche DR1 at CNRS – LMD/IPSL (Paris), and professeur attaché at ENS/PSL (Paris)

2013-2022: Directeur de recherche DR2 (Prof.) at CNRS - ENS de Lyon, France

2010-2013: Chargé de recherche CR1 (Ass. Prof.) at CNRS - ENS de Lyon, France

Cellulose twisted structures

Lecture by
Maria Helena Godinho

NOVA School of Science and Technology,
NOVA University Lisbon, Campus de Caparica,
Portugal

Cellulose, a main-chain chiral polymer largely produced by plants, forms in nature the backbone of many hierarchical helicoidal structures across different length scales. These structures contribute to structural coloration, enhanced mechanical properties, and motion. The handedness of these structures can vary from molecular, micro, and macro scales. For example, the helical shapes of tendrils in climbing plants can twist both left and right along the same filament [1]. Similarly, right- and left-handed structures can be observed at the nanoscale, as in the case of Pollia condensata fruit [2]. Particularly interesting are the awns of the Erodium fruit, which are programmed to switch from straight configurations to right-handed helices in response to moisture [3].

Here, inspired by the helices and spirals existing along the long achiral millimetric tendrils filaments, the production of curled polymeric fibers is addressed. The production of helices from straight polymeric filaments involves the formation of an asymmetry along the main axis of the filament. The mechanism involved in forming wrinkled asymmetric elastic filaments prepared through two chemical paths is described. Moreover, helicoidal cellulose-based structures possessing adaptive movements in response to environmental conditions will also be discussed. There is much to be learned from nature‘s designs to create innovative helical functional materials featuring unique optical and mechanical biopolymer properties.

[1] “Cellulose-based Biomimetics and Applications” A. P. C. Almeida, J. P. Canejo, S. N. Fernandes, C. Echeverria, P. L. Almeida and M. H. Godinho, Advanced Materials, 2018, 30(19), 1703655.

[2] “Pointillist structural color in Pollia fruit” S. Vignolini, P. J. Rudall, A. V. Rowland, A. Reed, E. Moyroud, R. B. Faden, J. J. Baumberg, B. J. Glover, U. Steiner, Proc. Natl. Acad. Sci. USA 2012, 109, 15712.

[3] Cellulose and chitin twisted structures: from nature to applications” R. R. da Rosa, S. N. Fernandes, M. Mitov and M. H. Godinho, Advanced Functional Materials, 2023, 2304286, DOI: 10.1002/adfm.202304286.

About Maria Helena Godinho

Maria Helena Godinho has D.Sc. and Ph.D. degrees in materials science and a Graduation in chemical engineering. During her Ph.D., she was a Nato/Invotan fellow in France. From 2016-2020, she was the vice president of the International Liquid Crystal Society.

She received the 2019 Freéderiksz Medal of the Russian Liquid Crystal Society and the 2023 Lars Onsager Professorship and Medal, sponsored by the Norwegian University of Science and Technology. She is a Prof. with a habilitation in Materials Science at NOVA University Lisbon.

Her research mainly focuses on functional materials inspired by nature based on cellulose and liquid crystalline systems.

Picture credit: The Norwegian Academy of Science and Letters/Thomas B. Eckhoff

Nanofluidics: Exploring New Frontiers

Lecture by Aleksandra Radenovic

EPFL STI IBI-STI LBEN,
Lausanne, Switzerland

In this talk, I will describe a novel single-molecule method where we engineer precise spatial and temporal control into the single-molecule experiment. We use a glass nanopore mounted on a 3D nanopositioner to spatially select molecules, deterministically tethered on a glass surface, for controlled translocations. By controlling the distance between the nanopore and the glass surface, we can actively select the region of interest on the molecule and scan it a controlled number of times and at a controlled velocity. Decreasing the velocity and averaging thousands of consecutive readings of the same molecule increases the signal-to-noise ratio (SNR) by two orders of magnitude compared to free translocations. We applied our method to various DNA constructs, achieving down to single nucleotide gap resolution. The spatial multiplexing combined with the sub-nanometer resolution could be used in conjunction with micro-array technologies to enable the screening of DNA, improve point-of-care devices, or enable high-density, addressable DNA data storage.

In the second part of the talk I will introduce two novel types of nanofluidic platforms. The geometry of the first nanofluidic platform combines the benefits of reduced sensing regions typically seen in 2D material nanopores with the asymmetric geometry of capillaries, resulting in ionic selectivity, stability, and scalability. The proposed nature-inspired growing method provides a flexible nanopore platform for various nanofluidic research applications, such as biosensing, energy science, and filtration technologies.

The second nanofluidic platform with a large entrance asymmetry is designed for in-memory processing, which can be mass-produced. Our fabrication process is scalable while the device operates at the second timescale with a conductance ratio

in the range 10-60. In-operando optical microscopy unveils the origin of memory, arising from the reversible formation of liquid blisters modulating the device conductance. The combination of features of these mechano-ionic memristive switches permits assembling logic circuits composed of two interactive devices and an ohmic resistor. These results open the way to design multi-component ionic machinery, such as nanofluidic neural networks, and implementing brain-inspired ionic computations.

[1] Leitao, S.M., Navikas, V., Miljkovic, H., Drake, B., Marion, S., Pistoletti Blanchet, G., Chen, K., Mayer, S.F., Keyser, U.F., Kuhn, A. and Fantner, G.E., Radenovic A. 2023. " Spatially multiplexed single-molecule translocations through a nanopore at controlled speeds. " Nature Nanotechnology, pp.1-7.

[2] Chernev, Andrey, Yunfei Teng, Mukeshchand Thakur, Victor Boureau, Lucie Navratilova, Nianduo Cai, Tzu- Heng Chen, Liping Wen, Vasily Artemov, and Aleksandra Radenovic. 2023 "Nature- Inspired Stalactite Nanopores for Biosensing and Energy Harvesting." Advanced Materials 2302827.

[3] Emmerich, Theo, Yunfei Teng, Nathan Ronceray, Edoardo Lopriore, Riccardo Chiesa, Andrey Chernev, Vasily Artemov, Massimiliano Di Ventra, Andras Kis, and Aleksandra Radenovic. 2024 "Nanofluidic logic with mechano–ionic memristive switches" Nature electronics doi.org/10.1038/s41928-024-01137-9

Freezing of drops

Lecture by Detlef Lohse

Physics of Fluids Department,
Faculty of Science and Technology,
University of Twente,
Enschede, The Netherlands

An immersed soft particle or oil droplet is severely deformed when engulfed into an advancing ice front. This deformation strongly depends on the engulfment velocity, even forming pointy-tip shapes for low velocities. We found that such singular deformations are mediated by interfacial flows in nanometric thin liquid films separating the nonsolidifying dispersed soft particles or droplets and the solidifying bulk. The competing forces in the thin film originate from the disjoining pressure and the surface tension gradient (Marangoni forces). We analytically modelled the fluid flow in these intervening thin films, using a lubrication approximation in the boundary layers. In an exact analytical calculation and with a formal analogy to a nonlinear pendulum, we then related the fluid flow to the deformation sustained by the dispersed droplet. We find it astounding that the nanoscopic interaction (van der Waals forces, disjoining pressure) determines the shape of the macroscopic immersed soft particle or droplet. This work has been published in reference [1].

We then extended this line of research to the interaction of several immersed soft particles or droplets over which a solidification front is passing. This time it is the relative thermal conductivity of the soft particles and the liquid which determines whether the two soft particles repel or attract. We call the effect the frozen Cheerios effect.

Next, we identified a freezing-induced topological transition of a double-emulsion, i.e., an oil droplet with an immersed water droplet inside, and as a whole immersed in water, passing through a freezing front. Whether the water droplet inside the oil droplet survives or whether it literally bursts due to pressure forces emerging at solidification depends on the control parameters, in particular the freezing front velocity.

Finally, we experimentally and numerically investigate the initial growth of

gas bubbles that nucleate and grow near the advancing ice front. We show that the initial growth of these bubbles is governed by diffusion and is enhanced due to a combination of the presence of the background gas concentration gradient and the motion of the approaching front. Additionally, we recast the problem into that of mass transfer to a moving spherical object in a homogeneous concentration field, finding good agreement between our experimental data and the existing scaling relations for that latter problem.

The work in the subprojects of this line of research has partially also been done with Pallav Kant, Vincent Bertin, Christian Diddens, Duco van Buuren, Duarte Rocha, and Annemarie Linnenbank, all Physic of Fluids group, University of Twente.

[1] J. G. Meijer, P. Kant, D. van Buuren, and D. Lohse, Phys. Rev. Lett. 130, (2023); see also Cover of that issue.

About Detlef Lohse

Detlef Lohse got his PhD at the University of Marburg in Germany in 1992, on the fully developed turbulence. After some time as postdoc in Chicago and Marburg again, in 1998 he became Chair of Physics of Fluids at the University of Twente in the Netherlands, where he as been ever since. He is also Member of the Max Planck Society and of the Max-Planck Institute in Göttingen/Germany.

His present research focus is on turbulence, thermal convection, multiphase flow, and on micro- and nanofluidics (bubbles, drops, inkjet printing, wetting). He and his group do both fundamental and more applied science.

Controlling the structure and function of ions in confinement

Lecture by Monica Olvera de la Cruz

Department of Materials Science and Engineering,
McCormick School of Engineering,
Northwestern University, Illinois, USA

Ions in confinement are ubiquitous in energy and biotechnology applications and offer remarkable capabilities in the design of biomimetic materials. We investigate the physical properties, including transport in different external conditions, of electrolyte solutions confined in channels, as well as electrolytes in nanoparticle assemblies.

About
Monica Olvera de la Cruz

Monica Olvera de la Cruz obtained her Ph.D. in Physics from Cambridge University, UK, in 1985. She joined Northwestern University in 1986, where she is Professor of Materials Science & Engineering, Chemistry and Physics and Astronomy, and Director of the Center for Computation and Theory of Soft Materials. She has developed theoretical models to determine the thermodynamics, statistics, and dynamics of soft materials. She is a member of the National Academy of Sciences, Board of Trustees of the Gordon Research Conferences, PNAS editorial board, and scientific advisory committees including the Max Planck Institute for Polymer Research, CIC biomaGUNE and ESPCI.

Passive and active topological soft matter

Lecture by Miha Ravnik

Faculty of Mathematics and Physics,
University of Ljubljana, Ljubljana,
Jozef Stefan Institute, Ljubljana, Slovenia

Topological soft matter presents a distinct class of materials capable of diverse material mechanisms and characteristics, ranging from internal order, self-assembly, to topological defects and notably, activity. Here, I will give a selected overview of recent and emergent directions in passive and active topological soft matter, with particular emphasis on structures in passive and active nematic liquid crystals and their capability to perform as photonic or micro-electronic elements. Especially, singular and nonsingular topological defects are shown to perform as central objects that can affect or even control the material equilibrium or out-of-equilibrium performance, both in passive and active systems.

About Miha Ravnik

Prof. Miha Ravnik is Head of the Group for physics of soft and partially ordered matter and Vice-dean at the Faculty of Mathematics and Physics, University of Ljubljana, and research councillor at J. Stefan Institute, Ljubljana, Slovenia. His expertise is in modeling and theory of soft matter systems, in particular liquid crystals, liquid crystal colloids, active fluids, effects of external fields, protein biophysics, and optics and photonics of complex optically-anisotropic fluids. Ravnik defended his PhD in physics in 2009 in Ljubljana, Slovenia, and from 2009-12, worked as a post-doctoral Marie Curie Fellow at the University of Oxford. His bibliography includes >100 research papers, with >5000 citations.

Yielding and fluidization in sheared and active amorphous solids

Lecture by Srikanth Sastry

Jawaharlal Nehru Centre for Advanced Scientific research (JNCASR), Bengaluru, India

The mechanical behaviour of a wide range of amorphous solids, from molecular glasses, soft materials such as polymeric glasses, colloids, to granular matter, is of interest in diverse contexts, from investigations of biological assemblies, glasses as materials, to geophysical phenomena. Amorphous solids exhibit microscopic aspects of plastic deformation that are distinct from crystalline solids. The nature of such plasticity and the eventual yielding behaviour have been investigated extensively in recent years through computer simulations and statistical mechanical approaches. In particular, the nature of yielding under cyclic deformation, with interesting connections to other reversible-irreversible transitions and memory formation, have been explored through computer simulation of model glasses. These studies reveal yielding to be a discontinuous transition, with a strong dependence of the degree of annealing of the glasses [1]. An important phenomenon in solids subjected to cyclic loading is that of fatigue failure, which occurs after a number of cycles of loading, with the number of cycles depending on the amplitude of deformation, with an apparent divergence as a limiting amplitude is approached from above. Above yielding, amorphous solids exhibit elasto-plastic flow, and in the case of cyclic shear deformation, diffusive motion. Interestingly, several of the key features of the transition from solid to fluidized states are also exhibited when dense assemblies of particles are subjected to driving by active forces. Such assemblies have been of interest to comprehend transitions between jammed and unjammed states in cellular and sub-cellular biological assemblies. Motivated

by observations of mechanically induced changes in the dynamical state in such assemblies, and the apparent role of confinement geometry, the transition between jammed to fluidized states of assemblies of active particles has been investigated [2], as a function of the strength and temporal persistence of the active forces, and in different confinement geometries. The fluidization transition broadly resembles yielding in amorphous solids. More specifically, a detailed analogy holds with the yielding transition under cyclic shear deformation, for finite persistence times. The fluidization transition is accompanied by driving induced annealing, strong dependence of the transition on the initial state of the system, a divergence of time scales to reach steady states, and a discontinuous transition to the diffusive state. The transition also exhibits a striking dependence on the nature of confinement. Results concerning these phenomena from computer simulations will be summarised.

[1] Himangsu Bhaumik, Giuseppe Foffi, Srikanth Sastry, The role of annealing in determining the yielding behavior of glasses under cyclic shear deformation, PNAS April 20, 2021, 118 (16) e2100227118.

[2] Yagyik Goswami, G. V. Shivashankar, Srikanth Sastry, Yielding behaviour of active particles in bulk and in confinement [arXiv:2312.01459]

About Srikanth Sastry

Srikanth Sastry is a Professor at the Jawaharlal Nehru Centre for Advanced Scientific Research. His research interests are in the area of statistical mechanics, with a focus on understanding a range of unusual and interesting properties of liquids and other soft condensed matter, which he addresses with computation as a major tool. Some of the themes of his research are:

Slow dynamics and routes to structural arrest (glass transition, jamming) in supercooled liquids and granular matter. Mechanical properties of glasses and other amorphous solids, their yielding behavior and memory formation; Transition from arrested to fluidized states in active matter; Routes to jamming in sphere packings, particularly shear jamming; Directed self assembly.

When active matter turns solid: From collective motion to selective actuation

Lecture by Olivier Dauchot

ESPCI Paris, 10 rue Vauquelin
Paris, France

Polar active matter is made of a large number of out of equilibrium interacting units, which convert some source of energy into directed motion. Active liquids have been an intense topic of research in the past 25 years. There are however a number of cases, such as living or artificially powered structured materials, cohesive cell layers or simply very dense assemblies of self propelled particles, for which elasticity also matters and new questions arise.

For instance, how does crystallization take place in a dense liquid of active particles? In liquids alignment between the particles leads to collective motion. Are such large-scale motions frozen by crystallization, or does the crystal flow? Also, together with elasticity comes the concept of vibrational modes? How is distributed the energy harvested by the active particles amongst those modes?

In this talk, I will present experimental and theoretical works addressing these question in various settings. More specifically, I will discuss how self-propelled particles, which take their momentum from a substrate, generically couple their orientational dynamics to their translational one. In the liquid phase this coupling is responsible for an effective mutual alignment and collective motion. When elasticity is present, it leads to an elasto-active feedback responsible for the condensation of the dynamics on a pair of modes that are non trivially selected.

I will discuss how one can understand the emergence of different types of such collective actuation and how they compare to dynamics observed in bacterial colonies and epithelial tissues.

About Olivier Dauchot

Olivier Dauchot, is a CNRS Research Director, Head of the Gulliver laboratory, at ESPCI-Paris PSL. His research focuses on Collective effects in Soft Matter, which he studies in model experimental systems. Developing collaborations with theoretical teams is one of his hallmarks. He presently concentrates on active matter, programmable matter, and glass forming systems.

Olivier is also leading the outreach activities of the University Paris Sciences et Lettres (PSL), that he sees as an essential aspect of research.

Previously, Olivier was leading the Group Instabilities and Turbulence in CEA-Saclay. At that time he brought significant contributions to the study of jamming and glassy dynamics in granular media, to that of chaotic mixing, as well as to the understanding of transition to turbulence.

Talks
Monday

AGENDA

08:50	-	09:10	Welcome
11:10	-	11:40	Coffee break
16:10	-	16:40	Coffee break
11:30	-	12:40	Poster session
12:40	-	14:00	Lunch break

Colloids — RW1

Chair: Joseph Brader

09:10 T001 **Direct observation of non-classical crystallization pathways in binary c olloidal systems.**

Stefano Sacanna, New York, US

Biological fluids and liquid-liquid phase separation — RW1

Chair: Elena Sesé-Sansa

14:00 T002 **Physics of biological condensates**

Frank Jülicher, Dresden, DE

Water, mixtures and solutions — RW1

Chair: Katrin Amman-Winkel

17:00 T003 **A computational perspective on supercooled water**

Pablo Debenedetti, Princeton, US

Colloids — N1

Chair: Matthias Fuchs / (Antonio M. Puertas)

10:10 T004 — **Let's twist again: Colloidal bananas assemble into double-twist skyrmions and blue phases** — Marjolein Dijkstra, Utrecht, NL

10:40 T005 — **Asymmetric bistable orientation dynamics of microprinted chiral particles in viscous shear flows** — Andreas Zöttl, F. Tesser, D. Matsunaga, J. Laurent, O. du Roure, A. Lindner, Wien, AT

11:00 T006 — **Programming self-assembly of colloidal gyroids for advanced materials** — Dwaipayan Chakrabarti, Birmingham, GB

Chair: Dora Izzo / (Eva Noya)

15:00 T007 — **DNA-coated colloids: A new approach to pathogen detection using supe-selectivity** — Erika Eiser, Trondheim, NO

15:30 T008 — **Studying patch forming dynamics of DNA-coated droplets with optical tweezers** — Jose Muneton Diaz, Fribourg, CH

15:50 T009 — **Dipolar depletion** — Anand Yethiraj, S. Semwal,I. Saika-Voivod,C. Clowe-Coish,C. Clowe-Coish St. John's, Newfoundland Labrador, CA

16:10 T010 **Simultaneous and independent topological control of identical microparticles in non-periodic energy landscapes**

Nico Stuhlmüller, F. Farrokhzad,P. Ku_wik,F. Stobiecki,M. Urbaniak,S. Akhundzada,A. Ehresmann,T. Fischer,D. de las Heras
Utrecht, NL

Biological fluids and liquid-liquid phase separation — N2

Chair: Emanuela Bianchi / (Takumi Matsuzawa)

10:10 T011 **Shape-shifting soft matter across evolution**

Andela Saric,
Klosterneuburg, AT

10:40 T012 **Tuning the binding selectivity in molecular activation**

Jure Dobnikar,
Beijing, CN

11:00 T013 **Comparison of droplet nucleation, Marangoni motion and dissolution in binary monotectic mixture succinonotrile-water with and without gravity**

Laszlo Sturz,
Aachen, DE

Chair: Jānis Cīmurs / (Emanuela Bianchi)

15:00 T014 **Partitioning power and the power of partitioning**

Eric Dufresne,
Ithaca, NY, US

15:30 T015 **Size and shape fluctuations of mesoscale domains in non-equilibrium liquid-liquid phase separation**

Amit Kumar, S. A. Safran
Rehovot, IL

15:50 T016 **Elastic microphase separation produces bicontinuous materials**

Carla Fernández Rico,
zurich, CH

16:10 T017 **Reaction-driven diffusiophoresis of liquid condensates**

Marcus Müller, G. Häfner
Göttingen, DE

Water, mixtures and solutions — N3

Chair: Robin Cortes-Huerto / (Ananya Debnath)

10:10 T018 — **How plastic water is?** — Livia Eleonora Bove, Roma, IT

10:40 T019 — **The impact of water on the nano-structure of deep eutectic solvents and on supramolecular solvation** — Daniel Harries, Jerusalem, IL

11:00 T020 — **Numerical modeling of the second harmonic optical response of liquid water, in bulk or at the air/water interface** — Claire Loison, G. Le Breton ,P.-F. Brevet,E. Benichou,O. Bonhomme Villeurbanne CEDEX, FR

15:00 T021 — **Simulations of electrolytes in water** — Carlos Vega, Madrid, ES

Chair: José Rafael Bordin / Robin Cortes-Huerto

15:30 T022 — **Dielectric properties of aqueous electrolytes at the nanoscale** — Hélène Berthoumieux, Paris, FR

15:50 T023 — **The interplay between hydration and growth of a salt crystal** — Adyant Agrawal, Stuttgart, DE

16:10 T024 — **Amorphous aggregates with a very wide size distribution play a central role in crystal nucleation** — Klaas Wynne, Glasgow, GB

Talks
Tuesday

AGENDA

11:10	-	11:40	Coffee break
15:50	-	16:10	Coffee break
12:40	-	14:00	Lunch break
17:10	-	20:00	Poster session

Liquid matter in energy, environmental and climate science — RW1

Chair: Bart Verberck

09:00 T025 **Statistical physics for climate sciences: application to wave turbulence, extreme heat waves, and extremes of renewable energy production**

Freddy Bouchet, France, FR

Polymers, polyelectrolytes and biopolymers — RW1

Chair: Regine von Klitzing

14:00 T026 **Cellulose self-assembled twisted structures**

Maria Helena Godinho, Caparica, PT

Liquid matter in energy, environmental and climate science — N1

Chair: William Wong / (David Huang)

10:00 T027 **Capturing clouds from droplet to climate**

Franziska Glassmeier, Delft, NL

10:30 T028 **Diffusional growth of cloud particles in mixed-phase clouds**

Peter Spichtinger, F. Schmid,P. Spichtinger Mainz, DE

10:50 T029 **Upscaling superhydrophobic silicone nanofilament coated membranes for membrane distillation**

Mariana Daniela Sosa, Prof H.-J. Butt,M. Kappl
Mainz, DE

Colloids — N1

Chair: Antonio M. Puertas / (Matthias Fuchs)

11:40 T030 **Unravelling the mysterious behaviour of tetrahedral liquids: The topological nature of the liquid-liquid phase transition**

Andreas Neophytou, D. Chakrabarti ,F. Sciortino
ROMA, IT

12:00 T031 **Virus-based star-shaped particles with internal flexibility**

Eric Grelet,
Pessac, FR

12:20 T032 **Noether's theorem and hyperforces in liquid matter**

Sophie Hermann, S. Robitschko,F. Sammüller,M. Schmidt
Paris, FR

Chair: Eva Noya / (Dora Izzo)

15:00 T033 **Rotational dynamics and interparticle friction in colloidal liquids, crystals and glasses.**

Ruth Crothers, B. van der Meer,R. Dullens
Nijmegen, NL

15:20 T034 **The countoscope: Quantifying collective dynamics by counting particles in boxes**

Sophie Marbach, B. Sprinkle,A. Thorneywork,S. Marbach
Paris, FR

16:10 T035 **A one-component icosahedral quasicrystal formed by particles with directional bonds**

Eva Noya, J. Doye
Madrid, ES

16:30 T036 **Does particle-resolved data resolve the hard sphere nucleation discrepancy?**

Lars Kürten, A. Castagnède,F. Smallenburg,C. P. Royall
Paris, FR

16:50 T037 **Light-controlled colloidal crystallization** — Steven van Kesteren, New York City, US

Polymers, polyelectrolytes and biopolymers — N2

Chair: Elisa Ballin / (Christiane Helm)

10:00 T038 **Protein dynamics - from nanosecond time scales to biological relevance** — Felix Roosen-Runge, Lund, SE

10:30 T039 **The sequence-structure-coarsening-function paradigm** — Raffaello Potestio, R. Menichetti,M. Rigoli,R. Potestio Trento, IT

10:50 T040 **Cationic antibiotics and Gram-negative bacteria: Tackling lipopolysaccharides in phospholipid membranes** — Bettina Tran, S. Salentinig Fribourg, CH

Chair: Subit Kumar Saha / (Zoriana Danel)

11:40 T041 **Charge regulation triggers condensation of short oligopeptides to polyelectrolytes** — Sebastian Pineda Pineda, P. M. Blanco,R. Sta_o,P. Ko_ovan prague, CZ

12:00 T042 **Explaining giant apparent pKa shifts in weak polyelectrolyte brushes** — David Beyer, P. Ko_ovan,C. Holm Stuttgart, DE

12:20 T043 **Salt-dependent complex formation in lysozyme-alginate mixture** — Asna Vakeri, A. Boire,S. Bouhallab,D. Renard Nantes, FR

Chair: Lea Delance / (Elisa Ballin)

15:00 T044 **Twist and writhe of ring polymers**
Roman Sta_o, Vienna, Austria, AT

15:20 T045 **Viscosity of flexible and semiflexible ring melts -from molecular origins to flow-induced segregation**
Ranajay Datta, F. Berressem,F. Schmid,A. Nikoubashman,P. Virnau
Mainz, DE

Chair: Zoriana Danel / (Subit Kumar Saha)

16:10 T046 **Non-ionic microgels react to incorporation of anionic guest molecules: Superchaotropic nano-ion**
Jasmin Simons, Aachen, DE

16:30 T047 **Topology-dictated self-assembled interfacial patterns on liquid oil droplets**
Eli Sloutskin, Ramat-Gan, IL

16:50 T048 **Non-monotonic bubble growth in heated elastomers**
Elise Lorenceau, K. Piroird,E. Lorenceau
Saint Martin d'Hères, FR

Liquid crystals and anisotropic fluids N3

Chair: Kiwing To / (Lea Spindler)

10:00 T049 **Curvature directed anchoring and defect structure of colloidal smectic liquid crystals in confinement**
Lisa Tran, Utrecht, NL

10:30 T050 **Walls and boojums in nematic toroidal droplets**
Javier Rojo-Gonzalez, C. Slaughter,A. de la Cotte,A. Yodh,A. Fernández-Nieves
Barcelona, ES

10:50 T051 **Tactoids large and small: I mpact of an electric field**

Paul van der Schoot, Eindhoven, NL

Liquid matter in energy, environmental and climate science — N3

Chair: David Huang / (William Wong)

11:40 T052 **Temperature induced phase separation of a binary mixture generating salinity gradients: a route to waste heat recovery.**

Marie-Caroline Jullien, M. Pascual,A. Amon,N. Chapuis,S. Abdel-ghani Idrissi,A. Siria,L. Bocquet
Rennes CEDEX, FR

12:00 T053 **Enhancing electrolyzer efficiency with rapid simulation incorporating gas bubble dynamics**

Laurent Courbin, H. B. Ahmed,F. Scholkopf,L. Courbin,M.-C. Jullien
Rennes, FR

12:20 T054 **Brain and brine: Towards iontronics for sustainability**

René van Roij, Utrecht, NL

Biological fluids and liquid-liquid phase separation — N3

Chair: Takumi Matsuzawa / (Jānis Cīmurs)

15:00 T055 **Flow-driven biofilm streamers assembly dynamics and rheology**

Eleonora Secchi, G. Savorana
Zurich, CH

15:20 T056 **Evidence of robust and universal symmetries in living fluids**

Amin Doostmoham-madi,
Copenhagen, DK

Chair: Ananya Debnath / (José Rafael Bordin)

16:10 T057 **Recent computational studies of the liquid-liquid transition in supercooled water**
Francesco Sciortino, Rome, IT

16:30 T058 **Anomalies in water nanodroplets**
Ivan Saika-Voivod, A. Almudallal, P. Poole, F. Sciortino, I. Saika-Voivod
St. John's, NL, CA

16:50 T059 **How NaCl addition destabilizes ionic liquid micellar suspension until phase separation**
Marie Plazanet, J.-F. Dufrêche, I. Billard
Saint Martin d'Heres, FR

Talks
Wednesday

AGENDA

11:10	-	11:40	Coffee break
16:30	-	17:00	Coffee break
11:30	-	12:40	Poster session
12:40	-	14:00	Lunch break

Liquids in confinement, solid-liquid interfaces and wetting — RW1

Chair: Yanbo Xie

09:00 **Nanofluidics: Exploring new frontiers**
T060

Aleksandra Radenovic,
Lausanne, CH

Liquid interfaces, foams and emulsions — RW1

Chair: Florian Müller-Plathe

14:00 **Freezing of drops**
T061

Detlef Lohse, J. Meijer
Enschede, NL

Prize lecture — RW1

Chair: Roel Dullens

17:00 **EPS prize lecture: Active nematics - A new approach to mechanobiology?**
T062

Julia Yeomans,
Oxford, OX1 3PU,
UK, GB

Polymers, polyelectrolytes and biopolymers — N1

Chair: Christiane Helm / (Lea Delance)

10:00 T063 — **Partitioning of hydronium and hydroxide ions between bulk aqueous solution and polymer interfaces** — Paul Cremer, University Park, PA, US

10:30 T064 — **Molecular Scope: watching macromolecular dynamics at solid-liquid interfaces at the single-chain level** — Malo Velay, A. Cartier, J. Comtet, Paris, FR

10:50 T065 — **Role of intermediate amorphous phases in CeO2 mesocrystal formation: liq-uid-phase TEM and _-radiation induced studies** — Nadezda Tarakina, Potsdam, DE

Active matter and driven systems — N1

Chair: Felix Höfling / (Chengjie Luo)

15:00 T066 — **Biomimetic behaviours of active matter** — Juliane Simmchen, Dresden, DE

15:30 T067 — **Shedding light on micro-algae: Photo-taxis-induced collective phenomena** — Raphaël Jeanneret, Paris, FR

15:50 T068 — **Navigation strategies in active emulsions** — Corinna Maass, Enschede, NL

16:10 T069 — **Machine learning inverse problems in out-of-equilibrium colloidal systems** — Daniel de las Heras, F. Sammüller, S. Herman-n, M. Schmidt, D. de las Heras, Bayreuth, DE

Liquid interfaces, foams and emulsions — N2

Chair: Maja Vuckovac / (Shan Jiang)

10:00 T070 — **Oxido-reduction in a foam**
CECILE MONTEUX, PARIS 05, FR

10:30 T071 — **Chemically active interfaces: A route to enhance and control catalysis**
Paolo Malgaretti, Erlangen, DE

10:50 T072 — **Surfactant exchanges between deformed soap films**
Théo Lenavetier, E. Schaub,I. Cantat
Rennes, FR

Chair: Shan Jiang / (Maja Vuckovac)

15:00 T073 — **Advances in advancing interfaces: The mathematics of manufacturing of industrial foams, fluidic devices, and automobile painting**
James Sethian, Berkeley, US

15:30 T074 — **Drop impact forces**
Vatsal Sanjay, D. Lohse
Enschede, NL

15:50 T075 — **Foam coarsening in a yield stress fluid**
Alice Requier, C. Guidolin,E. Rio,N. Galvani,S. Cohen-Addad,O. Pitois,A. Salonen
Orsay Cedex, FR

16:10 T076 — **Seaweed and dendritic domains of erucic acid monolayers**
Florian Gellert, F. Gellert,H. Ahrens
Greifswald, DE

Liquids in confinement, solid-liquid interfaces and wetting — N3

Chair: Astrid Southam / (Brian Laird)

10:00 T077 — **Molecular views on osmotic flows** — Laurent Joly, Villeurbanne Cedex, FR

10:30 T078 — **Zwitterions modulate interactions across model cytosol solutions** — Kieran Agg, S. Perkin Oxford, GB

10:50 T079 — **Effect of audible sounds on the forces acting between charged surfaces in water** — Cathy McNamee, S. Yamamoto Kyoto, JP

Liquid crystals and anisotropic fluids — N3

Chair: Lea Spindler / (Kiwing To)

15:00 T080 — **Interfaced, confined and rectified active nematic flows** — Francesc Sagues, J. Ignés-Mullol,I. Velez,B. Martínez-Prat Barcelona, ES

15:30 T081 — **Let's twist again: Achiral hard bananas assemble double - Twist skyrmions and blue phases** — Rodolfo Subert, G. Campos-Villalobos,M. Dijkstra Utrrecht, NL

15:50 T082 — **Coarsening in bent-core liquid crystals** — Varsha Banerjee, Hauz Khas, IN

16:10 T083 — **Strength from defects: Topological barriers to defect nucleation generate large mechanical forces in a cholesteric film** — Bruno Zappone, Rende (CS), IT

Talks
Thursday

AGENDA

11:10	-	11:40	Coffee break
15:50	-	16:10	Coffee break
12:40	-	14:00	Lunch break
17:30	-	20:00	Poster session

Ionic liquids, electrolytes and liquid metals — RW1

Chair: Isabelle Billard

09:00 T084 **Controlling the structure and function of ions in confinement**

Monica Olvera de la Cruz, Evanston, US

Liquid crystals and anisotropic fluids — RW1

Chair: Friederike Schmid

14:00 T085 **Passive and active topological soft matter**

Miha Ravnik, Ljubljana, SI

Liquids in confinement, solid-liquid interfaces and wetting — N1

Chair: Brian Laird / (Astrid Southam)

10:00 T086 **Liquid crystallization mechanism under curved geometric confinement**

Limei Xu, Beijing, CN

10:30 T087 **Water on K-feldspars (001): Does the Al/Si-ordering impact the hydration structure?**

Franziska Sabath, T. Dickbreder, B. Reischl, R. Nilson, A. Foster, R. Bechstein, A. Kühnle Mainz, DE

10:50 T088 **Understanding the physics of hydrophobic solvation**

Nigel Wilding, M. Coe,F. Turci ,R. Evans
Bristol, GB

Chair: Isaac Gresham / (Paulo Teixeira)

11:40 T089 **Direct visualization of energy dissipation and wetting ridge geometry on lubricant-infused surfaces**

Abhinav Naga, M. Rennick,L. Hauer,W. S.Y. Wong,A. Sharifi-Aghili,D. Vollmer,H. Kusumaatmaja
Edinburgh, GB

12:00 T090 **Soft wetting transition**

Christopher Henkel, V. Bertin,J. H. Snoeijer,U. Thiele
Münster, DE

12:20 T091 **Adaptive wetting: Surface ordering-induced wetting transition on thermos-responsive oleophilic polymer brushes**

Frieder Mugele, B. Shakhayeva,S. Reuvekamp,S. de Beer,B. Braunschweig,F. Mugele
Enschede, NL

Chair: Marion Grzelka / (Lukas Hauer)

15:00 T092 **Energy dissipation of a contact line moving on a nanotopographical defect**

Thierry ONDARÇUHU, S. Franiatte,G. Paredes,P. Tordjeman
TOULOUSE, FR

15:20 T093 **Characterizing wetting imperfections by drop friction**

Chirag Hinduja, A. Laroche,S. Shumaly,Y. Wang,D. Vollmer,H.-J. Butt,R. Berger
Mainz, DE

Chair: Paulo Teixeira / (Isaac Gresham)

16:10 T094 **On slippery ice**
Luis G. MacDowell, Madrid, ES

16:30 T095 **Hydration forces, hydration solids, and the hygroelastic theory**
Ozgur Sahin, C. McBean, S. Sumaiya, L. Ruiz-Ortega, B. Sejour, A. Ogunlana New York, US

16:50 T096 **Classical simulations of electrode/electrolyte interfaces with ab-initio accuracy: from pairwise interactions to wetting, phase transitions and dynamics**
Alexander Schlaich, Stuttgart, DE

Supercooled liquids, glasses and gels — N2

Chair: Kyung Hwan Kim / (Klaas Wynne)

10:00 T097 **Microscopic dynamics of extremely viscous liquids**
Camille Scalliet, Paris, FR

10:30 T098 **Unsupervised learning and intrinsic dimension of amorphous structure**
Daniele Coslovich, Trieste, IT

10:50 T099 **Coarse-graining in space versus time**
Ulf R. Pedersen, D. R. Reichman, J. C. Dyre, U. R. Pedersen Roskilde, DK

Active matter and driven systems N2

Chair: Pragya Kushwaha / (Felix Höfling)

11:40 T100 **Stable and metastable non-equilibrium hyperuniform fluids**
Ran Ni, Singapore, SG

12:00 T101 **Long-range translational order and hyperuniformity in two-dimensional chiral active crystal**
Yuta Kuroda, T. Kawasaki,K. Miyazaki Chikusa, Nagoya, JP

12:20 T102 **Active nematic defects exhibit hyperuniformity**
Jyothishraj Nambisan, A. de la Cotte,D. J. G. Pearce,A. Levy,L. Giomi,A. Fernandez-Nieves Barcelona, ES

Chair: Chengjie Luo / (Pragya Kushwaha)

15:00 T103 **Active colloidal assembly**
Peter Schall, H. Jonas,P. Bolhuis,P. Schall Amsterdam, NL

15:20 T104 **Dynamical clustering and wetting phenomena in inertial active matter**
Hartmut Löwen, Düsseldorf, DE

Chair: Andreas Zöttl / (Marisol Ripoll)

16:10 T105 **Light-controlled, reconfigurable microswimmers with internal feedback**
Se-Hyeong Jung, Zürich, CH

16:30 T106 **Average negative heat in a non-Markovian bath**
Felix Ginot, C. Bechinger Konstanz, DE

16:50 T107 **Trail formation in signalling active matter**
Felix Höfling, Z. Mokhtari,R. I. A. Patterso,F. Höfling Berlin, DE

Ionic liquids, electrolytes and liquid metals — N3

Chair: Alexandre P. dos Santos / (Hans-Jürgen Butt)

10:00 T108 **Electrostatic screening – what we still do not know 101 years after Debye and Hückel**
Andreas Härtel, Freiburg im Breisgau, DE

10:30 T109 **Fluidic iontronic devices for brain-inspired signalling and computing in a brain-like medium**
Tim Kamsma, R. van Roij Utrecht, NL

10:50 T110 **Machine learning-driven investigation of the structure and dynamics of the room temperature ionic liquid BMIM BF4**
Fabian Zills, Stuttgart, DE

Chair: Mariia Kopcha / (Alexandre P. dos Santos)

11:40 T111 **Structure and anomalous underscreening in protic ionic liquid solutions confined between two charged surfaces**
Catherine Fung, Oxford, GB

12:00 T112 **A modified Restricted Primitive Model with local dielectric saturation generates long-ranged interactions between charged surfaces, at high salt concentrations**
Jan Forsman, Lund, SE

12:20 T113 **Non-Stoichiometric Protic Ionic Liquids: The Role of Excess Acid in Charge Transport Mechanisms**
Monika Schönhoff, M. Schönhoff Münster, DE

Supercooled liquids, glasses and gels — N3

Chair: Marjorie Ladd-Parada / (Kengo Nishio)

15:00 T114 **Connecting real glasses to mean-field models: A study of structure, dynamics and thermodynamics**
Ujjwal Kumar Nandi, Sakyo-ku, Kyoto, JP

15:20 T115 **Supercooled water: Insights from X-ray Emission Spectroscopy and Raman Spectroscopy**
Claudia Goy, R. Bauer,Y.-P. Chang, A. Gierke,M. Harder,F. Lehmkühler,F. Trinter, Z. Yin,R. Grisenti Hamburg, DE

Chair: Klaas Wynne / (Kyung Hwan Kim)

16:10 T116 **Structure and dynamics of vapor deposited amorphous ice**
Tobias Eklund, A. Karina,P. Zalden, F. Lehmkühler, K. Amann-Winkel Mainz, DE

16:30 T117 **Plastic instabilities in micro-alloyed amorphous solids**
Meenakshi L, B. Sen Gupta Vellore, IN

16:50 T118 **Free energy surface of two-step nucleation**
Peter Poole, Antigonish, CA

17:10 T119 **Extending the potential energy landscape formalism to quantum liquids**
Nicolas Giovambattista, Brooklyn, US

Talks
Friday

AGENDA

11:10	- 11:40	Coffee break	
13:15	- 14:00	Lunch	

Supercooled liquids, glasses and gels — RW1

Chair: Stefano Buzzaccaro

09:00 T120 **Yielding and fluidization in sheared and active amorphous solids**

Srikanth Sastry, H. Bhaumik, S. Maity, S. Athani, G. Foffi, Y. Goswami, G. V. Shivashankar
Bengaluru, IN

Active matter and driven systems — RW1

Chair: Christian Holm

12:00 T121 **When active matter turns solid: From collective motion to selective actuation**

Olivier Dauchot,
Paris, FR

12:45 **Closing session and poster prizes**

Ionic liquids, electrolytes and liquid metals — N1

Chair: Hans-Jürgen Butt / Mariia Kopcha

10:00 T122 **Bulk, wetting and electrowetting properties of concentrated electrolytes**

Robert Dryfe, P. Carbone, H. Burnett, H. Wood
Manchester, GB

10:30 T123 **Understanding the rare earth ions extraction using themomorphic ionic liquid**

Juliette Sirieix Plenet, S. Papadopoulou,A. de Souza Braga Neto,A.-L. Rollet,I. Billard,C. Cousin,V. Briois,A. Beauvois,L. Michot, Paris, FR

Liquids in confinement, solid-liquid interfaces and wetting — N2

Chair: Lukas Hauer / (Marion Grzelka)

11:20 T124 **Cavitation in mesoporous materials**

Etienne Rolley, M. Bossert, P. Spathis,K. Davitt Paris, FR

11:40 T125 **Current fluctuations reveal transport mechanisms in a colloidal micropore**

Alice Thorneywork, S. Marbach,A. Thorneywork; Oxford, GB

Active matter and driven systems — N2

Chair: Marisol Ripoll / (Andreas Zöttl)

10:00 T126 **Active matter for self-assembly**

Jeremie Palacci, Klosterneuburg, AT

10:30 T127 **Activity-induced self-constraint of nematic defects and flow structures**

Tyler Shendruk, C. Doré,K. Thijssen, T. López-León,T. Shendruk; Edinburgh, GB

11:20 T128 **Non-reciprocal alignment induces asymmetric clustering in active repulsive mixtures**

Kim L. Kreienkamp, S. H. L. Klapp Berlin, DE

11:40 T129 **Active turbulence and odd viscosity in a colloidal chiral active system: relevance of substrate friction**

Marisol Ripoll, Jülich, DE

Supercooled liquids, glasses and gels — N3

Chair: Kengo Nishio / (Marjorie Ladd-Parada)

10:00 T130 **Nanoscale optical imaging of individual and densely packed microgel colloids**
Frank Scheffold, Fribourg, CH

10:30 T131 **Structural origin of relaxation in dense colloidal suspensions**
Ratimanasee Sahu, M. Sharma,P. Schall,S. M. Bhattacharyya,V. Chikkadi
Pashan, IN

11:20 T132 **Homogenizing virial stress can make colloidal glasses ultrastable**
Taiki Yanagishima, J. Russo,F. Sciortino,T. Yanagishima
Kyoto, JP

11:40 T133 **The nature of non-phononic excitations in disordered systems**
Walter Schirmacher, M. Paoluzzi,F. C. Mocanu,D. Khomenko,F. Zamponi,G. Szamel,G. Ruocco
Mainz, DE

Posters
Monday and Tuesday

Colloids — TENT

P001	**Assessing the conditions for stable particle trapping in microgel suspensions in water and non-aqueous solvents**	Afshin Azarpour, M. Caggioni, G. Zanchetta Segrate MI, IT
P002	**Shape, temperature and density interplay in depletion forces**	Itay Azizi, Rishon Lezion, IL
P003	**Transport of bacteria in hydrogels with tunable porosity: from active motion to anomalous diffusion**	Gavino Bassu, Florence, IT
P004	**Thermodynamic and dynamical properties of icosahedral quasicrystals**	Edwin Armando Bedolla-Montiel, S. Marín-Aguilar, M. Dijkstra , Utrecht, NL
P005	**Data Driven Inference of Colloidal Interactions**	Florian Benedetti, T. Saghaei, P. D. J. van Oostrum, E. Bianchi Vienna, AT
P006	**Effect of nanoparticle geometry on their interaction with multivalent metal ions**	Tilen Berglez, J. Rescic, K. Bohinc Ljubljana, SI
P007	**Towards accurate electrostatic models of patchy colloids and proteins**	Emanuela Bianchi, E. Locatelli, S. Copar, A. Bozic, E. Bianchi Vienna, AT

P008 **The Influence on Crystal Nucleation of Disorder in the Pre-critical Cluster Population**
Richard Bowles, Saskatoon, CA

P009 **First-principles superadiabatic theory for the dynamics of inhomogeneous fluids**
Joseph Brader, Fribourg, CH

P010 **Short-time self-diffusivity in binary suspensions of nearly hard colloidal spheres**
Stefano Buzzaccaro, V. Ruzzi, P. Moretti, R. Piazza
Milano, IT

P011 **Stochastic dynamics of Brownian particles in non-Markovian baths**
Juliana Caspers, F. Ginot, K. K. Kumar, N. Ditz, L. Reinalter, M. Fuchs, C. Bechinger, M. Krüger
Göttingen, DE

P012 **Fast event-driven simulations for soft spheres: from dynamics to Laves phase nucleation**
Antoine Castagnède, L. Filion, F. Smallenburg
Orsay, FR

P013 **Wavenumber dependent viscosity of a system of particles coupled dissipatively to a lattice Boltzmann fluid**
Joydip Chaudhuri, Mainz, DE

P014 **Importance of colloidal aspects in Lubricating industry**
Patrick Degen, Hagen, DE

P015 **Accurately predicting fluid-crystal phase boundaries: The "direct" approach**
Giovanni Del Monte, F. Smallenburg, M. de Jager, L. Filion
Utrecht, NL

P016 **Asymptotic methods for ensemble transformations in the complex plane**
Emmanuel Di Bernardo, J. Brader
Fribourg, CH

P017	**Self-Assembly of Sphere on a plane: from the micro to the macro, from thermal to driven**	Giuseppe Foffi, R. Maire, A. Plati, E. Fayen, M. Impéror-Clerc, L. Filion, F. Boulogne, F. Restagno,F. Smallenburg Orsay, FR
P018	**Vibrational phenomena in glass at low temperatures captured by disordered harmonic oscillators**	Matthias Fuchs, Konstanz, DE
P019	**Two-Dimensional Diamond-like Colloidal Crystals Formed by Layer-by-Layer Electrostatic Self-Assembly**	Minori Fujita, M. Takemoto, A. Toyotama, T. Okuzono, J. Yamanaka Nagoya, JP
P020	**Molecular Dynamics of colloidal binary mixtures in 2D**	Cynthia Yolotzin García Mosqueda, Juriquilla, MX
P021	**Towards controlled self-assembly of curved surfaces**	Andraz Gnidovec, S. copar Ljubljana, SI
P022	**Long ranged stress correlations in simulations of the hard sphere liquid**	Niklas Grimm, M. Fuchs Konstanz, DE
P023	**Hierarchical and heterogeneous growth in the two-phase coexistence region of myristic acid Langmuir monolayers**	Eiji Hatta, Sapporo, JP
P024	**Formation dynamics of branching structure in the slippery DLCA model**	Koichi Hirata, T. Araki Kyoto, JP
P025	**Including rotational sliding friction in simulation models for chiral active particles**	Kay Hofmann, Mainz, DE

P026	**Forces on a pair of parallel plates in an electrolyte solution: the effects of charge regulation**	Dora Izzo, Rio de Janeiro, BR
P027	**Depletion zone in two-dimensional deposits of soft microgel particles**	Merin Jose, Nijmegen, NL
P028	**Partially bonded crystals: a pathway to porosity and polymorphism**	Carina Karner, E. Bianchi Vienna, AT
P029	**Numerical Simulation of the Formation of Two-dimensional Colloidal Diamond Structures by Layer-by-Layer Stacking**	Kenta Kawase, A. Toyotama, T. Okuzono, J. Yamanaka Nagoya, JP
P030	**Active particles in static and dynamic confinements**	Timo Knippenberg, C. Bechinger Konstanz, DE
P031	**Structure Formation in Supraparticles Composed of Spherical and Elongated Colloidal Particles**	Kritika Kritika, M. Yetkin, K. Kritika, M. Howard, H.-J. Butt, M. Kappl, A. Nikoubashman Dresden, DE
P032	**Increasing Short-Range Attractions Lowers Preference for Nucleation at Pinned Sites in Colloidal Vapor Deposition**	Chandan Kumar, Gandhinagar, IN
P033	**Tunable encapsulation of the sessile droplet**	Rutvik Lathia, S. Nagpal, P. Sen Mainz, DE
P034	**Emulsification of silicone oils in Newtonian and non-Newtonian media of wormlike micelles**	Ivan Lesov, Sofia, BG

P035	**Reinforcement learning for dynamic control in patchy particle self-assembly for quasicrystal formation**	Uyen Lieu, N. Yoshinaga Hokkaido, JP
P036	**Dynamics of Particle Number Fluctuations in Driven Diffusive Systems**	Eleanor Mackay, B. Sprinkle, S. Marbach, A. Thorneywork Oxford, GB
P037	**Spontaneous Demixing of Binary Colloidal Flocks**	Samadarshi Maity, A. Morin Leiden, NL
P038	**Harnessing machine learning to anticipate the colloidal Mpemba effect**	Isha Malhotra, H. Löwen Düsseldorf, DE
P039	**Machine Learning Microgels**	Susana Marin Aguilar, Roma, IT
P040	**Observation of Temperature Controlled Crystal Nucleation near a Wall in Dense Microgel Suspensions**	Janne-Mieke Meijer, T. Verouden, T. Stevens, J.-M. Meijer Eindhoven, NL
P041	**Self-assembly assisted fragmentation and compartmentalization in a confined mixture of core-corona disks**	Carlos I Mendoza, Mexico City, MX
P042	**Self-averaging method for parameter estimation of coarse-grained models**	Carlos Monago, P. Espanol, J. A. de la Torre Madrid, ES
P043	**Exact equilibrium properties of square-well and square-shoulder disks in single-file confinement**	Ana Maria Montero, Badajoz, ES

P044 **Grain Boundary Loops in 2D Colloidal Crystals**

Habib Moradi, A. Curran, R. P. A. Dullens
Nijmegen, NL

P045 **Mathematical Aspects of Noether's Theorem in Statistical Mechanics**

Johanna Müller, S. Hermann, F. Sammüller, M. Schmidt
Bayreuth, DE

P046 **Ammonium Glycyrrhizic Acid/Water/short-chain hydrotropic Alcohol-Hydrogels and their Potential as Solubilizer and Nanocarriers**

Eva Müller, W. Kunz
Regensburg, DE

P047 **Dynamic interactions among the active colloids and passive tracer: Investigating the change in motion and behavior**

Suvendu Kumar Panda, S. Das, D. Pratap Singh
Bhilai, IN

P048 **Structure and flow of soft colloidal glasses based on hollow microgels and regular microgels**

Alexander Petrunin, T. Höfken, J. Houston, A. Terry, M. Bek, R. Kádár, A. Fernandez-Nieves, A. Scotti
Aachen, DE

P049 **Optothermal manipulation of 2D-colloids**

Roberto Piazza, R. Gervasone, M. Bessega, V. Ruzzi, S. Buzzaccaro
Milano, IT

P050 **Computational Prediction of Second-Harmonic Scattering at Solid-Liquid Interfaces**

Milan Predota,
ceské Bud_jovice, CZ

P051 **Dynamical heterogeneities probed by active microrheology**

Antonio M. Puertas, T. Voigtmann, M. Fuchs
Almeria, ES

P052	**Self-assembly of banana-shaped SU-8 particles in external electric fields**	Marieke Reijneveld, Nijmegen, NL
P053	**Hyperforce balance via thermal Noether invariance of any observable**	Silas Robitschko, F. Sammüller, M. Schmidt, S. Hermann Bayreuth, DE
P054	**Sedimentation of Erythrocytes in semi-dilute Suspensions: Collective Dynamics and Fractional Self-Similarity**	Luis Rojas-Ochoa, Ciudad de México, MX
P055	**Multiscale Confocal Microscopy Reveals the Mechanism of Delayed Collapse in Colloidal Gels**	Paddy Royall, R. Chen, J. Dong, M. Faers, R. Jack, T. Liverpool Paris, FR
P056	**Packing pattern of power-sized droplets in 2D: Experiments and simulations**	Daisuke S. Shimamoto, Tokyo, JP
P057	**Electro-acoustic spinning for single-cell analysis (EAS)**	Tayebeh Saghaei, A. Weber, E. Reimhult, P. van Oostrum Vienna, AT
P058	**Self-assembly of polygonal colloids mediated by selective depletion interaction**	Dinesh Kumar Sahu, O. Du Roure, J. Heuvingh, M. Lenz Paris, FR
P059	**Neural functionals in statistical mechanics**	Florian Sammüller, S. Hermann, M. Schmidt Bayreuth, DE
P060	**Atomic force microscopy for the characterization of interactions between paraffin wax and inhibitors during crystallization**	George Claudiu Savulescu, Eindhoven, NL

P061	**Interplay between mechanical characteristics of microgel and stability of foams**	Manmeet Kaur SODHI, Muhlthal, DE
P062	**Theory of Entropy Driven Self-Assembly of Hard Particles**	Isaac Spivack, K. Pepa, T. Teague, D. Fijan, S. Glotzer Ann Arbor, US
P063	**Multispecific DNA-coatings for self-assembly**	Tine Stevens, Eindhoven, NL
P064	**Fabrication of 2D diamond lattice by layer-by-layer self-assembly of colloidal particles using adsorption-diffusion of ions**	Marina Takemoto, M. Fujita, A. Toyotama, T. Okuzono, J. Yamanaka Nagoya, JP
P065	**Order-parameter-free analysis of soft matters: an application of anomaly detection**	Takamichi Terao, Gifu, JP
P066	**Delayed Gravitational Collapse in Attractive Colloidal Gels**	Kim William Torre, J. de Graaf Utrecht, NL
P067	**Crystallization of Microgel Colloids Due to Depletion Attraction**	Akiko Toyotama, J. Yamanaka, T. Okuzono, M. Takeuchi Nagoya, JP
P068	**Superadiabatic dynamical density functional theory for colloidal suspensions under homogeneous steady-shear**	Salomée Tschopp, Fribourg, CH
P069	**Thinking Outside the Box: Studying Quasicrystals using Open Boundary Simulations**	Alptug Ulugöl, R. Hardeman, F. Smallenburg, L. Filion Utrecht, NL

P070	**Spontaneous symmetry breaking out-of-equilibrium: Insights from Kibble-Zurek Mechanism in a Superparamagnetic Colloidal Monolayer**	Alireza Valizadeh, P. Keim Göttingen, DE
P071	**Characterization of polydisperse nanoplatelet dispersions via X-ray scattering and rheology**	Laura van Hazendonk, R. Tuinier, E. Foschino, L. Matthews, M. Vis, H. Friedrich Eindhoven, NL
P072	**Detecting the Orientation of Anisotropic Colloids using a Convolutional Neural Network**	Teun Verouden, L. Hillmann, D. Kumar Mohapatra, L. Janssen, J.-M. Meijer Eindhoven, NL
P073	**Comprehensive conductometric charge characterization of deionized latex colloids under decarbonized and ambient CO2 conditions**	Peter Vogel, Mainz, DE
P074	**Many-Body Contact Forces in Microgel Suspensions**	Fran Ivan Vrban, Ljubljana, SI
P075	**Self-assembly of colloidal graphene for topological physics**	Adam Walker, Birmingham, GB
P076	**Statistics of carrier-cargo complexes**	René Wittmann, P. A. Monderkamp, H. Löwen Düsseldorf, DE
P077	**Generalized geometric criteria for the absence of effective many-body interactions in the Asakura-Oosawa model**	René Wittmann, S. Jansen, H. Löwen Düsseldorf, DE

P078 **Linker-mediated designed self-assembly and superselectivity**

Xiuyang Xia, R. Ni
Munich, DE

P079 **Fabrication of Gold Colloidal Crystals Mediated by Depletion Attraction and Its Application for SERS**

Junpei Yamanaka, A. Toyotama, T. Okuzono
Nagoya, JP

P080 **Frequency-Dependent Microelectro-phoresis Study of Colloids with Tunable Surface Charge**

Anand Yethiraj, A. Joy, S. Semwal
Newfoundland Labrador, CA

P081 **Self-assembly of cubic Janus colloids under rest and shear**

Takahiro Yokoyama, Y. Kobayashi, N. Arai, A. Nikoubashman
Dresden, DE

P082 **Towards an absolute interaction measurement of optical tweezers**

Chi Zhang, J. Muntón Díaz, A. Muster, D. R. Abujetas, L. S. Froufe-Pérez, F. Scheffold
Fribourg, CH

Biological fluids and liquid-liquid phase separation — ALTE MENSA

P083 **Liquid-liquid phase separation driven by charge heterogeneity**

Emanuela Bianchi, D. Notarmuzi
Wien, AT

P084 **Dynamics of non-equilibrium phase separation in an asymmetric mixture of ultrasoft particles under shear**

Tanmay Biswas, G. Kahl, G. P. Shrivastav
Vienna, AT

P085 **Thermodynamics and S-Palmitoylation Dependence of Interactions between Human Aquaporin-4 M1 Tetramers in Model Membranes**

Jessica Carder, B. Barile, K. Shisler, F. Pisani, A. Frigeri, KW Hipps, G. P. Nicchia, J. Brozik
Oxford, GB

P086	**Physical model of serum flow in Organ-on-Chip systems**	J_nis Cimurs, Riga, LV
P087	**Wrapping microgels at fluid membranes**	Tanwi Debnath, Jülich, DE
P088	**Characterizing the structure of protein and DNA condensates by Coherent Anti-Stokes Raman spectroscopy**	Pablo Gómez Argudo, M. Brzezinski, W. Chen, B. Dúzs, A. Samanta, A. Walther, S. H. Parekh Mainz, DE
P089	**Metastable phase-separated droplet generation and long time DNA enrichment by laser-induced Soret effect**	Mika Kobayashi, Y. Minagawa, H. Noji Tokyo, JP
P090	**Salt-dependent phase behavior of a mixture of oppositely charged colloids**	Yuto Kubo, Y. Nakamura, T. Hayashi, A. Yoshimori, M. Kinoshita Niigata, JP
P091	**Fluid Dynamics of a Respiratory Droplet. Experimental and Numerical Investigation in the Context of Viral Dynamics.**	Javier Martínez-Puig, J. Rodríguez-Rodríguez, Á. Marín Madrid, ES
P092	**Controlling the properties and motility of biomolecular condensates with solutes**	Takumi Matsuzawa, K. Varma, E. R. Dufresne Ithaca, US
P093	**Transporting Phase Separated Protein Condensates using Chemical Gradients**	Iain Muntz, L. Jawerth Leiden, NL
P094	**Exploring Pathways of Self-Assembly at Liquid-Liquid Interfaces**	Mephin Philip Alamcheril, F. Schmid, S. Dhiman Budenheim, DE

P095 **Modelling Liquid-Liquid Phase Separation of Polymer Mixtures: Application to Partitioning and Magnetic Instabilities**

Alberto Scacchi, C. Rigoni, M. Haataja, J. Timonen, M. Sammalkorpi
Turku, FI

P096 **Aqueous Two-Phase Systems within Selectively Permeable Vesicles**

Berta Tinao, J. Aragonés, L. Rodríguez Arriaga
Madrid, ES

P097 **Influence of effective patchiness on the phase-diagram of a coarse-grained protein model**

Jens Weimar, F. Hirschmann, M. Oettel
Tübingen, DE

Water, mixtures and solutions

P098 **Characterising Water Networks in Protein Cavities and Their Defects Through Molecular Dynamics Simulations of the Protein-Ligand Complex WDR5-H3**

Denis Arribas Blanco, L. Stelzl, P. Czodrowski
Mainz, DE

P099 **How can we interpret the X-ray structure factor of water?**

Imre Bakó, Á. Madarász, L. Pusztai
Budapest, HU

P100 **Microrheology on a water-glycerol mixture under pressure**

Fiona Berner,
Mainz, DE

P101 **About the origin of anomalies in purely repulsive poly(a)morphous systems**

José Rafael Bordin,
Pelotas, BR

P102 **A classical density functional theory for solvation across length scales**

Anna Bui, S. Cox
Cambridge, GB

P103	**Almost perfect NIR isosbestic point of water found in ternary KF-NaBr-water system: may water be considered to be a two-state liquid in such a system?**	Janez Cerar, B. Aouadi, M. Majadi, J. Kopecky, Z. Kovács Ljubljana, SI
P104	**Metastable States of Model Substances**	Claudio Cerdeirina, Ourense, ES
P105	**Interface Water probes Heterogeneity Length and Time Scale of Membranes**	Ananya Debnath, Karwar, Jodhpur, Rajasthan, IN
P106	**Volatile binary mixtures on polymer brushes**	Jan Diekmann, U. Thiele Münster, DE
P107	**Structure and dynamics of alkali metal halide aqueous solutions from molecular simulations of phase-transferable polarizable models**	Jan Dockal, Ústí nad Labem, CZ
P108	**Dynamic Light Scattering and Volumetric Study of Vitamins (B1 and B6) in Aqueous Solutions of DMSO**	Heghine Ghazoyan, S. Markarian Yerevan, AM
P109	**Small-Angle X-ray Scattering of Vitrified Water Droplets**	Johannes Giebelmann, Innsbruck, AT
P110	**Structure of Water and Ice Under Confinement in Functionalized Silica Nanopores**	Niels Gießelmann, P. Lenz, S.-M. Meinert, T. Simon, R. Bauer, W. Jo, C. Köhn, N. Striker,M. Fröba, F. Lehmkühler Mainz, DE
P111	**Solvation shell structures and ion pairing in aqueous solutions of Fe3+**	Amrita Goswami, H. Jónsson Reykjavik, Iceland, IS

P112 **Homogeneous nucleation rate of methane hydrate under experimental conditions from molecular dynamics**

Joanna Grabowska, S. Blazquez, E. Sanz, E. G. Noya, I. M. Zerón, J. Algaba, J. M. Miguez, F. J. Blas,C. Vega
Gdansk, PL

P113 **Role of hydration water on self-assembly of lipids, surfactants, polymers and proteins**

Mafumi Hishida,
Tokyo, JP

P114 **Chaotropic or Hydrophobic Effect: Nano-ions in water and binding to a non-ionic polymer**

Max Hohenschutz, W. Richtering, C. Gonzalez Lopez
Aachen, DE

P115 **Viscosity-diffusion decoupling in supercooled water under pressure, an experimental test of the liquid-liquid critical point assumption**

Bruno Issenmann, R. Berthelard, A. Mussa, P. Ragueneau, F. Caupin
Villeurbanne, FR

P116 **Spatial investigation of intersurface forces in near-critical binary system using atomic force microscopy**

Masami Kageshima,
Osaka, JP

P117 **Deformation mechanisms of Calcium-Silicate-Hydrate by molecular dynamics simulations**

Ikumi Kanemasu, S. Ohmura
Miyake,Saeki-ku,Hiroshima-shi, Hiroshima,

P118 **Direct Observation of Fragile-to-Strong Transition in Bulk Supercooled Water using FELs**

Kyung Hwan Kim, R. Tyburski, M. Shin, A. Nilsson
Pohang, KR

P119 **Drag forces in counterdriven inhomogeneous binary mixtures**

Jonas Köglmayr, F. Sammüller, M. Schmidt
Bayreuth, DE

P120	**Bubble Coalescence Dynamics in Confined Aqueous Electrolyte Solutions: Experimental Investigation**	Tatsuro Kono, M. Matsumoto Kyoto, JP
P121	**Proton transport through ice nano-ribbons confined in uniaxially distorted carbon nanotubes**	Haruka Kyakuno, K. Matsuda, K. Ishizeki, T. Yamamoto, Y. Maniwa Rokukakubashi, Kanagawa-ku, Yoko-hama-shi, Kanagawa, JP
P122	**The influence of ions on water dynamics on protein surfaces**	Miha Luksic, Ljubljana, SI
P123	**The viscosity of gelatin solutions in the presence of different macromolecular cosolutes**	Alexandra Lupu, M. Bercea Iasi, RO
P124	**Anions and Cations Affect Amino Acid Dissociation Equilibria via Distinct Mechanisms**	Varun Mandalaparthy, M. Tripathy, N. van der Vegt Darmstadt, Germany, DE
P125	**The effect of dimethylsulfoxide (or diethylsulfoxide) on the properties of DNA solutions**	Shiraz Markarian, G. Shahinyan, H. Ghazoyan Yerevan, AM
P126	**Continuum model for extraction and retention in porous media**	André F. V. Matias, D. F. Valente-Matias, N. R. Neng, J. M. F. Nogueira, J. S. Andrade Jr., R. C. V. Coelho, N. A. M. Araújo Utrecht, NL
P127	**Force-force and force-gradient correlation functions in liquids: Results from computer simulations**	Joshua Matthes, F. Sammüller, M. Schmidt Weißenbrunn, DE

P128 **Controlling Polymorph Crystallisation Using Structured Ternary Fluids**

James Meadows, M. Wilson, M. Miller, S. Cooper
Durham, GB

P129 **Comparing machine learning potentials for liquid water simulations**

Pablo Montero de Hijes, C. Dellago, R. Jinnouchi, B. Schmiedmayer, G. Kresse
Vienna, AT

P130 **Effect of solvation structure around a nanoparticle on the breakdown of the Stokes_Einstein relationship**

Yuka Nakamura, S. Arai, A. Yoshimori, R. Akiyama
Niigata, JP

P131 **Supramolecular structures in monohydroxy alcohols: cases of halogen alcohols**

Sebastian Pawlus,
Chorzów, PL

P132 **Growing Biofilms on soft substrates**

Anthony Pietz,
Münster, DE

P133 **Characterization of the solvation shell of alfa-, beta- and gamma-cyclodextrin molecules**

Szilvia Pothoczki, I. Bakó
Budapest, HU

P134 **Scaling relations for phase count in multicomponent mixture**

Yicheng Qiang, C. Luo, D. Zwicker
Göttingen, DE

P135 **Aqueous lyotropic systems and birefringent foams**

Andreia F. M. Santos, C. V. Esteves, K. Zalewska, J. L. Figueirinhas, P. J. Sebastião, M. Dionísio, M. H. Godinho, L. C. Branco
Caparica, PT

P136 **Capillary evaporation of salty solutions: to diffuse or to creep?**

Uddalok Sen, M. Mukhopadhyay, L. T. Raju, J. Rodríguez-Rodríguez, M. van der Linden, J. van der Gucht, D. Lohse
Wageningen, NL

P137 **Finite-Size Two-Body Excess-Entropy Integral Equation for Simple Liquids and Binary Mixtures**

Mauricio Sevilla,
Mainz, DE

P138 **Density Fluctuations, Solvation Thermodynamics and Coexistence Curves in Grand Canonical Molecular Dynamics Simulations**

Mauricio Sevilla,
Mainz, DE

P139 **Structure of water in the presence of hydrophobic and hydrophilic surfaces with different curvatures**

Jiri Skvara, I. Nezbeda
Usti nad Labem, CZ

P140 **Density and sound velocity measurements as simple monitoring tools for reactions in liquid media**

Stefan Tanda,
Graz, AT

P141 **Further extension of the Madrid-2019 force field: Parametrization of the nitrate (NO$_3^{-}$) and ammonium (NH$_4^+$) ions.**

Víctor Manuel Trejos Montoya, M. de Lucas, C. Vega de las Heras, S. Blazquez, . Gámez
Ciudad de México, Mexico, MX

P142 **Pattern formation of salt solution condensing or evaporating from nanoporous surface**

Joachim Trosseille, H. Bellezza, O. Vincent
Villeurbanne, Cedex, FR

P143 **Density profiling in turbid drops of freely expanding colloidal crystals**

Marcus Witt, G. H. P. Nguyen, J. R. von Puttkamer-Luerssen, C. H. Yildirim, H. Löwen, T. Palberg
Mainz, DE

P144 **Light-controlled anion binding supramolecular systems**

Leonard Wyszynski, L. Hoppmann, P. Steinforth, L. Entgelmeier, O. G. Mancheno, M. Schönhoff
Münster, DE

P145 **Analysis of inelastic X-ray scattering spectra of molecular liquids by generalized Langevin formalism**

Koji Yoshida, S. Hosokawa
Fukuoka, JP

P146 **Thermal conductivity and thermal polarization anomalies of supercooled water**

Guansen Zhao, F. Bresme
London, GB

Liquid matter in energy, environmental and climate science TENT

P147 **Colloidal Dynamics from Microscopy: Tracking vs Box Counting vs DDM**

Adam Carter,
Paris, FR

P148 **Slide Electrification of Drops at Low Velocities**

Chirag Hinduja, H.-J. Butt, R. Berger
Mainz, DE

P149 **Non-equilibrium molecular dynamics of concentration-gradient-driven liquid transport through 2D membranes**

David Huang,
The University of Adelaide, AU

P150	**Rheology of aqueous biphasic system**	Bastien Lebreux, M. Plazanet, E. Lorenceau, I. Billard Saint-Martin-d'Hères, FR
P151	**Graphene oxide nanoslits for improved water desalination**	Paulo Netz, Y. A. Santos, M. Köhler, M. Barbosa Porto Alegre, BR
P152	**Charging, de-charging and re-charging of dielectric surfaces in contact with aqueous electrolytes**	Thomas Palberg, M. N. Qaisrani, M. Sulpizi, T. Palberg Mainz, DE
P153	**Molecular Dynamics Simulations for Sustainability**	Maria Incoronata Sciancalepore, P. J. Camp, N. Bradley, L. Felisari Edinburgh, GB
P154	**Percolation in Suspensions of Carbon-Black Aggregates under Shear Flow**	Victor Tänzel, F. Coupette, T. Schilling Freiburg, DE
P155	**The Structure of Water-in-Salt Electrolytes at Charged Interfaces**	Neave Taylor, S. Perkin Oxford, GB
P156	**New contrasts for holographic microscopy might enable an industrial revolution**	Peter van Oostrum, E. Reimhult Wien, AT
P157	**Inverse design of coarse-grained models of zeolites**	Chaohong Wang, Utrecht, NL
P158	**Dynamic study of liquid films in porous media using Atomic Force Microscopy**	Gijs Wensink, G. Wensink Eindhoven, NL

P159 **Dielectric constant of water and proton transport under hydrophilic nanoconfinement in graphene oxide**

Vikas Yadav,
IIT Madras, IN

P160 **Role of adsorption sites on water uptake capacity and water transport in graphene oxide**

Vikas Yadav,
IIT Madras, IN

Liquid crystals and anisotropic fluids

P161 **Symbiotic Dynamics in Living Liquid Crystals**

Aditya Aditya,
New Delhi, IN

P162 **Emergence of a vortex lattice in anisotropic active flow under confinement**

Olga Bantysh, F. Sagués, J. Ignés-Mullol
Barcelona, ES

P163 **Interplay between hydrodynamics and topological defects in nematic systems: hysteresis and metastability**

Jayeeta Chattopadhya,
Copenhagen, DK

P164 **Many-body potentials and optimized mapping schemes for systematic coarse-graining**

Sayan Dutta, M. N. Qaisrani, D. Andrienko, A. Nikoubashman
Dresden, DE

P165 **Phase Behaviour of Hard Convex Particles**

Poshika Gandhi, A. Kuhnhold
Freiburg, DE

P166	**Origin of helicity in the chiral self-assembly of viruses**	Eric Grelet, Pessac, FR
P167	**High-resolution dielectric anisotropy investigation of carbon nanotube–smectic-A liquid crystal dispersions: An upper limit of the latent heat and the pretransitional anomaly at the nematic–smectic-A transition**	Funda Guven, O. Girgin, M. C. Cetinkaya, H. Ozbek, S. Yildiz Ozbek Istanbul, TR
P168	**Systematic molecular coarse-graining for dynamical simulations using anisotropic particles**	David Huang, H. Nguyen, M. Wilson Adelaide, AU
P169	**Marangoni flow induced by temperature gradient across different phases in CBLC series**	Yuki ITO, J. Yoshioka, K. Fukao Kusatsu-shi, JP
P170	**Melting of 2D Crystals of Squares**	Peter Keim, Düsseldorf, DE
P171	**Virial series and mutual excluded volume of hard, convex particles**	Markus Kulossa, J. Wagner Rostock, DE
P172	**Shaping nematic order in bacterial films with single-cell resolution patterning**	Matthias Le Bec, C. Boggon, E. Secchi, L. Isa Zürich, CH
P173	**A Novel Tool probing Fluctuations and Transfer of Orbital Momentum to Molecular Liquids**	Peter Lemmens, Braunschweig, DE
P174	**Nematic Ordering of Colloidal Rods within Flexible Vesicles**	André F. V. Matias, S. Marín-Aguilar, F. Camerin, S. van der Ham, H. R. Vutukuri, M. Dijkstra Utrecht, NL

P175 **Exploring Tetratic Order and Orientational Characteristics in a Quasi-1D System of Freely Rotating Hard Squares**

Sakineh Mizani, P. Gurin, S. Varga, M. Oettel
Tuebingen, DE

P176 **Orientational ordering of some quasi-one-dimensional hard body systems.**

Sakineh Mizani, P. Gurin, M. Oettel, S. Varga
Tuebingen, DE

P177 **3D printed colloidal microswimmer in liquid crystal**

Linsy Jane Selvin Robert, M. Ravnik, I. Musevic
Ljubljana, SI

P178 **Light-driven oscillations of microparticles in free surface liquid crystals**

Sergey Shvetsov, T. Orlova, A. Hayrapetyan, A. Vasil'ev, M. Rafayelyan
Yerevan, AM

P179 **Machine learning of a density functional for anisotropic patchy particles**

Alessandro Simon, M. Oettel, G. Martius
Tübingen, DE

P180 **Phase separation of a magnetic fluid: Asymptotic states and non-equilibrium kinetics**

Anuj Kumar Singh,
New Delhi, IN

P181 **Self-assembly of d(G4C2) sequences: from DNA-quadruplexes to columnar liquid crystalline phases**

Lea Spindler, M. Potrc, E. cokor, I. Drevensek-Olenik
Ljubljana, SI

P182 **Ultraconfined oblate hard particles between hybrid penetrable walls**

Paulo Teixeira, D. Cleaver, P. Teixeira
Lisbon, PT

P183	**A novel patchy particle system to study the emergent phases in bent-core liquid crystals**	Jenis Thongam, Wien, AT
P184	**Free energy computation of the phases formed by bent-core patchy colloids**	Jenis Thongam, Wien, AT
P185	**Flow of binary mixture of spherical and elongated grains from silo with rotating orifice**	Kiwing To, Nankang, Taipei, TW
P186	**Motion and control of virtual colloidal particles in confined chiral liquid crystals**	Joel Torres Andrés, R. C. V. Coelho, J. I. Mullol, F. Sagués Barcelona, ES
P187	**The Structure of the Ferroelectric Nematic Phase: Insights from Molecular Dynamics Simulations**	Mark Wilson, T. Thompson, M. De Mello, T. Araki Durham, GB

Posters
Wednesday and Thursday

Polymers, polyelectrolytes and biopolymers — ALTE MNESA

P188	**Liquid crystalline ordering in mechanically interlocked molecular systems**	Liang Wu, Shanghai, CN
P189	**Linked polymers in shear flow tumble differently**	Reyhaneh Afghahi Farimani, Z. A. Dehaghani, C. Likos, M. R. Ejtehadi Vienna, AT
P190	**Phase behavior of quasi two dimensional star polymers**	Reyhaneh Afghahi Farimani, C. Likos Vienna, AT
P191	**Co-cation effect on the reentrant behavior of effective interaction between like-charged particles immersed in an electrolyte solution**	Ryo Akiyama, A. Suematsu, M. Takeda Fukuoka, JP
P192	**Manifold-Learning Approach to Material Data: Application to Experimental Data of Liquid Substances and Porous Structural Data**	Shota Arai, G. Kikugawa, Y. Takayama, T. Yoshidome Sendai, JP
P193	**Designing polymeric microgels with star-like architecture**	Elisa Ballin, Rome, IT

P194	**Exploring the Impact of Defects in Polymer Networks: Insights from Molecular Dynamics Simulations**	Sayam Bandyopadhyay, A. Nikoubashman Dresden, DE
P195	**Stability of alpha-Helix Polypeptide in Aqueous Urea: The Role of Dipole Orientation and Hydrogen Bonding**	Luis Andre Baptista, Y. Zhao, K. Kremer, D. Mukherji, R. Cortes-Huerto Mainz, DE
P196	**Simulating Proton Exchange Membrane Hydration and Swelling: A DPD Approach with Diffusion and SANS Validation**	Eddy Barraud, C. Nieto-Draghi, H. B. Kolli, V. Lachet, D. Pasquier Rueil-Malmaison, FR
P197	**How Crowding and Confinement change the Phase Behavior of Intrinsically Disordered Nuclear Proteins**	Janka Bauer, Mainz, DE
P198	**pyMBE: the Python-based Molecule Builder for ESPResSo**	David Beyer, P. B. Torres, S. P. Pineda, C. F. Narambuena, J.-N. Grad, P. Kosovan, P. M. Blanco Stuttgart, DE
P199	**Specific binding effect causes percolation without phase separation in RNA-protein mixtures**	Xinxiang Chen, Mainz, DE
P200	**Block versus gradient copolymers: Simulations in solution and at interfaces**	Jonathan Coldstream, P. Camp, D. Phillips, P. Dowding Edinburgh, GB

P201	**A simulation study of the water ordering effect of callose**	Robin Cortes-Huerto, Mainz, DE
P202	**Analytical and numerical investigation of star polymers in confined geometries**	Zoriana Danel, J. Halun, P. Karbowniczek Cracow, PL
P203	**Breaking of topological mirror symmetry in knots of helical polymers**	Kostas Daoulas, J. Rothörl, K. Chauhan, M. Schmitt, P. Besenius, P. Virnau, K. Daoulas Mainz, DE
P204	**Structural dependence of physical aging from fast scanning calorimetry**	Nicolas Delpouve, L. Delbreilh, A. Saiter-Fourcin, E. Dargent St Etienne du Rouvray, FR
P205	**Self-assembly of viral capsids and packing of genome**	Jure Dobnikar, Beijing, CN
P206	**Cation Dependence of Noise Induced by Polymer Adsorption in Nanopores**	Anna Drummond Young, S. Marbach, A. Thorneywork Edinburgh, GB
P207	**Grand Canonical Simulations of Disordered Proteins**	Rodrigo F. Dillenburg, H. Ruan, E. Lemke, M. Girard Mainz, DE
P208	**Coarse-grained Simulation of Soil Release Polymers at Liquid-Surface Interfaces**	Elliot Findlay, Durham, GB
P209	**Theoretical modelling of pH-responsive polymer networks for actuating materials**	Eleonora Foschino, I. E. Hulsen, M. Vis, A. Ianiro, R. Tuinier Eindhoven, NL

P210	**Strong correlation between slow process and volume relaxation in glassy polymers**	Koji Fukao, K. Nishi, J. Yoshioka, K. Fukao Shiga, JP
P211	**Surfaces forces on nano-porous materials**	Micha Góra, P. Navascués, U. Schütz, D. Hegemann, M. Heuberger Sankt Gallen, CH
P212	**Structural Properties of Liquid Lactic Acid Based on Ab Initio Molecular Dynamics Simulations**	Kai Ito, H. Shimakura, A. Koura, K. Shimamura, F. Shimojo Kumamoto, JP
P213	**Each Contribution of a Specific Site on a Large Molecule in the Diffusion Phenomenon**	Tomoya Iwashita, R. Akiyama Fukuoka-shi, JP
P214	**Virial coefficients and theta temperatures of off-lattice polymer models**	David Kofke, A. Schultz, J. Douglas Buffalo, US
P215	**Charged colloids and proteins under dialysis: the effect of charge-regulation and patchy charge distribution**	Peter Kosovan, P. Blanco, R. Stano, P. Kosovan Prague, CZ
P216	**Sequestration of small ions, weak acids and bases by polyelectrolyte complexes, studied by simulation and experiment**	Peter Kosovan, J van Lente, S. Lindhoud, P. Kosovan Prague, CZ
P217	**Mixed arabinoxylan and plant-protein gels**	Marjorie Ladd Parada, N. Wahlström, D. Rebaque, J. Carlsson, P. Sivan, C. Hernández ty, M. Hedenqvist, F. Vilaplana Stockholm, SE

P218	**Canonical titration simulations**	Yan Levin, Porto Alegre, BR
P219	**What is the structure of a biomolecular condensate?**	Charlotta Lorenz, Zurich, CH
P220	**Gelling behavior and gel properties of gelatin/polymer mixtures**	Alexandra Lupu, L. M. Gradinaru, V. R. Gradinaru, M. Bercea Iasi, RO
P221	**Ion-specific effects in polyelectrolyte solutions: chain-chain interactions, chain rigidity and dynamics**	Natalie Malikova, C. Hotton, Y. Sakhawoth, A.-L. Rollet, J. Sirieix-Plenet, L. Tea, S. Combet, M. Sharp,I. Hoffmann, F. Nallet Paris, FR
P222	**Origin of anomalously large depletion zones in like-charged colloid-polyelectroyte mixtures**	Max Martens, M. Vis, R. Tuinier Eindhoven, NL
P223	**Mechanics of droplets supported by DNA networks**	Kazutoshi Masuda, M. Yanagisawa Tokyo, JP
P224	**Effects of nanoparticle shape on the rheology of a polymer nanocomposites**	Sachin MB Gautham, Chennai, IN
P225	**Hydrogels based on ionene polyelectrolytes: dynamics of matrix and charged guest species**	Sarrah Mezdari, Paris, FR
P226	**Multiscale approaches to model the functions of Ubiquitin and SUMO modifications in protein phase separation**	Supriyo Naskar, K. Kremer, O. Kukharenko Mainz, DE

P227	**Degradable and functional (co)polymers from tailored poly(amino ester)s**	Chloé Pascouau, Mainz, DE
P228	**Ultrasound-induced Volume Phase Transition of PNIPAM Microgels**	Amin Rahimzadeh, L. Sahebmohammadi, R. von Klitzing, A. Rahimzadeh Darmstadt, DE
P229	**Computer simulations of Hollow Microgels**	Leah Rank, E. Zaccarelli Roma, IT
P230	**Micellar hybrid nanocarrier of di-block copolymer and spiropyran derivative embedded with gold nanoparticles for light-responsive cancer drug delivery with real-time monitoring through NSET mechanism**	Subit Kumar Saha, S. Dyagala, S. Biswas Jawahar Nagar, IN
P231	**Thermophoresis of polymers by mesoscale simulations**	Lisa Sappl, C. Likos, A. Zöttl Wien, AT
P232	**Effect of hydration on the Premelt Behavior at the ice-polymer interface**	TAKUMI SATO, I. Yasuda, Y. Kobayashi, N. Arai, K. Yasuoka Yokohama, JP
P233	**Supercoiled ring polymers under shear flow**	Christoph Schneck, J. Smrek, C. Likos, A. Zöttl San Sebastián, ES
P234	**The role of effective interactions on the stability of interpenetrated reversible polymer networks**	Christoph Schneck, A. J. Moreno San Sebastián, ES

P235 **Uptake and release of cationic guest molecules into weak anionic polyelectrolyte microgels: A Monte Carlo study**
Stefanie Schneider, Aachen, DE

P236 **Polymer dynamics in active nematic turbulence**
Tyler Shendruk, T. Shendruk
Edinburgh, GB

P237 **Cluster Formation in Solutions of Polyelectrolyte Rings**
Roman Sta_o, Vienna, AT

P238 **Multiscale simulations to understand pairing and stacking at the origin of life**
Laurie Stevens, R. Martina, A. Ferrarini, M. Sulpizi
Bochum, DE

P239 **Intermolecular Orientation Correlation of Liquid L-Malic Acid Based on First-Principles Molecular Dynamics Simulations**
Wataru Sugimoto, K. Ito, H. Shimakura, S. Tahara, K. Ohara, A. Koura, K. Shimamura, F. Shimojo
Kumamoto, JP

P240 **Evaluation of adsorption free energy based on stochastic thermodynamics**
Tomonori Takaya, M. Matsumoto
Kyoto, JP

P241 **Understanding functionalities of carbon nitrides using in-situ/in operando transmission electron microscopy**
Nadezda Tarakina, Potsdam, DE

P242 **Micro and macro phase-separation of actin cytoskeleton**
Mitsusuke Tarama, Fukuoka, JP

P243 **Binary mixtures of linkers and particles: chaining, branching and equilibrium gels**
José M. Tavares, Lisboa, PT

P244 **Orientational fluctuations of a magnetic dimer**
James Tett, A. Thorneywork
Oxford, GB

P245	**ANNaMo: Coarse-grained modelling for folding and assembly of RNA and DNA systems**	Francesco Tosti Guerra, Rome, IT

Liquids in confinement, solid-liquid interfaces and wetting TENT

P246	**Probing the nanoparticle-matrix interactions of soft magnetic polymer hybrid materials using simulations**	Rudolf Weeber, P. Kreissl, C. Holm, R. Weeber Stuttgart, DE
P247	**Uniqueness of time-dependent density-potential mappings**	Christian Bair, C. Bair, H. Löwen, R. Wittmann Düsseldorf, DE
P248	**Interfacial versus confinement effects in the frequency-dependent dielectric response of nanoconfined water**	Maximilian R. Becker, R. R. Netz Berlin, DE
P249	**Elastin-Like Polypeptide Condensates as Reversibly Triggerable Compartments for Synthetic Cells**	Chang Chen, S. Deshpande Wageningen, NL
P250	**Dynamical wetting of textured surfaces.**	Céline Cohen, E. Barthel, L. Betti, Y. Bouret, J. Fresnais, X. Noblin, J. Queiros-Campos Nice, FR
P251	**Direct experimental measurement of hydrodynamic forces in electric double layers**	Caroline Cramail, B. Cross, R. Lhermerout, E. Charlaix Grenoble, FR
P252	**Surface directed spinodal decomposition of fluids in confined geometry**	Daniya Davis, B. Sen Gupta Tamil Nadu, IN

P253	**Crystalline local order and dynamic correlations in two-dimensional amorphous silica**	Marco Dirindin, D. Coslovich Trieste, IT
P254	**Modelling changes of dielectric permittivity within stacks of charged lipid bilayers**	Ludovic Gardré, L. Joly, C. Loison Lyon, FR
P255	**Explaining the exceptional slipperiness of covalently attached liquids**	Isaac Gresham, F. Figueired, A. Nelson, A. Tinti, A. Giacomello, K. Koynov, C. Neto Sydney, AU
P256	**Wetting dynamics of a prewetting film on nanometric defects**	Marion Grzelka, Gif-sur-Yvette, FR
P257	**Investigation of Lubricant Film Dynamics due to Drops on Slippery Surfaces**	Shivam Gupta, Z. Dai, K. Khare Kanpur, IN
P258	**Membrane shapes, liquid-liquid interfaces, and elastocapillarity**	Lukas Hauer, Berlin, DE
P259	**Wetting on silicone surfaces**	Lukas Hauer, A. Naga, R. Badr, J. Pham, W. Wong, D. Vollmer Berlin, DE
P260	**Simulating motile bacteria in complex environments**	Christian Holm, C. Holm Stuttgart, DE
P261	**Exploring Wetting on a Super-smooth Surface on a Nano- to Micrometer scale**	Mohammad Hormozi, Darmstadt, DE
P262	**Metal-organic framework membrane for harvesting osmotic energy**	Hiran Jyothilal, Manchester, GB

P263	**Machine Learning classical direct correlation functionals for model fluids**	Stefanie Kampa, F. Sammüller, M. Schmidt Bayreuth, DE
P264	**Contact line dynamics on moving fibres measured by X-ray holography**	Louisa Kraft, Mainz, DE
P265	**Inside and Out: Surface thermodynamics from positive to negative curvature**	Brian Laird, R. Roth, S. Martin, H. Hansen-Goos Lawrence, US
P266	**Atomic-scale study of charge separation and accumulation at hydrophobic surfaces**	Wenlan LIU, D. Andrienko Mainz, DE
P267	**Contact spreading under drops impacting a substrate covered by a thin oil layer**	Shiva Moradimehr, K. Harth Brandenburg an der Havel, DE
P268	**The effect of electric charges on dynamic wetting**	Aaron Ratschow, H.-J. Butt, S. Hardt Darmstadt, DE
P269	**Study of the interface between liquid polymers and viscoelastic polymers in dynamic and static states**	Khalil Remini, K. Remini, D. Peschka, L. Schmeller, B. Wagner Saarbrücken, DE
P270	**Corrosion-driven droplet wetting on iron nanolayers**	Aurélien Ricard, E. Raspaud, F. Restagno, M. Plapp, Y. Lansac, Y. H. Jang Orsay Cedex, FR
P271	**Spontaneous charge separation by drop motion across of a hydrophobic tube**	Shaghayegh Saeidiharzand, Stuttgart, DE

P272	**Understanding oleophobicity through plasma polymer substitutes for PFAS**	Astrid Southam, M. Gora, M. Heuberger St. Gallen, CH
P273	**Dynamics of liquid bridges between patterned substrates**	Paulo Teixeira, R. Coelho, P. Teixeira Lisbon, PT
P274	**Predicting adsorption isotherms using a two-dimensional version of the statistical associating fluid theory for Mie pair potentials (SAFT-VR Mie 2D)**	Víctor Manuel Trejos Montoya, A. García-Hernández, A. Martínez-Borquez, S. Cordero-Sánchez, J. M. Esparza-Schulz, A. Yanez-Aulestia, I. A. Ibarra Mexico city, MX
P275	**Measuring interaction forces between lipid bilayers using the surface force balance (SFB)**	Daria Turculet, S. Perkin Oxford, GB
P276	**Measuring surface energy of solid surfaces using Centrifugal Adhesion Balance**	Appu Vinod, R. Tadmor Beer Sheva, IL
P277	**High voltage generated by moving drops**	Stefan Weber, P. Bista, A. Ratschow, H.-J. Butt Stuttgart, DE
P278	**Active Wetting**	Nigel Wilding, R. Jack, N. Wilding Bristol, GB
P279	**Designing Perfluoroalkylated Surfaces with Low Contact Angle Hysteresis**	William Wong, M. Kiseleva, W. Wong Espoo, FI
P280	**Spontaneous charging affects the dynamics of contact line moving over defect**	Yaolei Xiang, D. Cortes, H.-J. Butt, K. Koynov Mainz, DE

P281	**Anomalous electrokinetic phenomena in confinement**	Yanbo Xie, Xi'an, CN
P282	**Quantitatively predicting the solid-liquid interface kinetic coefficients**	Yang Yang, Y. Yang Shanghai, CN
P283	**Solid-liquid interfacial kinetic coefficients and free energies along the solid-liquid coexistence line for inverse power potential**	Yang Yang, Y. Yang Shanghai, CN

Liquid interfaces, foams and emulsions — TENT

P284	**Dynamic characteristics of nonspherical droplet impact on a substrate for effective deposition**	Sungchan Yun, Chungju, KR
P285	**Capillary ordered multiwalled carbon nanotubes as probes of droplet evaporation phenomena**	Markus Ahlskog, E. Hyyryläinen, J. Merikoski Jyvaskyla, FI
P286	**Capture of CO2 using aqueous foam**	Cécile Aprili, Saint Martin d'Hères, FR
P287	**Nonlinear rheology near jamming transition point under the finite shear rate**	Hidemasa Bessho, T. Kawasaki, K.Miyazaki Nagoya, JP

P288 **Numerical analysis of contact angles for a retracting water droplet**

Aman Bhargava, D. Díaz, T. Willers, D. Vollmer, V. Sanjay, D. Lohse
Enschede, NL

P289 **Instability in a horizontal soap film**

Isabelle Cantat,
Rennes, FR

P290 **Contact Line Deformation at Sub-Micrometric Defects using High Speed Microscopy**

Lea Delance,
D. Cortes, Y. Xiang, K. Koynov, H.-J. Butt
Mainz, DE

P291 **Structure-tribology-texture link in blended soy-cow beverages**

Elina Gilbert, A. Machado-Broch, V.Mathieu, A. Saint-Eve, A. Izzet, M. Ramaioli
Palaiseau, FR

P292 **Predicting the behaviour of surfactant molecules at oil/water interfaces using dissipative particle dynamics simulations**

Rachel Hendrikse, M. Wilson
Durham, GB

P293 **Freezing of gas bubbles in a liquid**

Bastien Isabella, C. Monteux, S. Deville
Lyon, FR

P294 **Role of surfactant chemistry on the dynamics of pancake-like droplets.**

Lucas Jannin, J.-T. Baué, A. Gans, I. Cantat, M.-C. Jullien
Rennes, FR

P295 **Hydrophobic surface coatings created through self-stratification of amphiphilic Janus particles**

Shan Jiang,
Ames, US

P296	**Prediction of locally resolved SFG spectra at the air-water interface including multipole contributions**	Louis Lehmann, M. R. Becker, R. R. Netz Berlin, DE
P297	**Surfactant-free microemulsions: how molecular dynamic reflects nano-structuration**	Firoz Malayil Kalathil, I. Hoffmann, M. Plazanet Grenoble, FR
P298	**Improved displacement efficiency in Ganglia size distribution by invasion of complex fluids**	Karthik Nuthalapati, Saarbrücken, DE
P299	**Capillary flows with Taylor gas bubbles**	Claudiu Patrascu, I. Rasuceanu Bucharest, RO
P300	**Spontaneous capillary fall**	Ioana Rasuceanu, C. Patrascu Bucharest, RO
P301	**How Does the Softness of Microgels Affect the Jet Stability Induced by Surface Acoustic Waves?**	Atieh Razavi, Darmstadt, DE
P302	**Experimental investigation to test the static bell's inequality in a hydrodynamic system**	Sunil Kumar Saroj, S. Perrard, M. Labousse Paris, FR
P303	**Stochastic thermodynamics: Application to bubble nucleation**	Issei Shimizu, M. Matsumoto Kyoto, JP
P304	**Adsorption at the interfaces and at the three-phase contact-line in nanodroplets**	Fabio Staniscia, Ljubljana, SI
P305	**Density correlation and structure factor of liquid surfaces and lipid membranes: How Bedeaux and Weeks rule the waves**	Pedro Tarazona, F. Bresme, E. Chacón Madrid, ES

P306 **Deposition of Complex Colloidal Assemblies from Drop Evaporation**

Jacopo Vialetto, T. Gaichies, S. Rudiuk, M. Morel, D. Baigl
Sesto Fiorentino, IT

P307 **How droplets move on stochastic superhydrophobic surfaces**

Maja Vuckovac,
Espoo, FI

P308 **Atomistic characterization of the SiO2 high-density liquid/low-density liquid interface**

Yang Yang,
Shanghai, CN

P309 **Hydration structure of adsorption water in anion exchange membrane investigated by MD simulation and in-situ X-ray scattering**

Koji Yoshida, T. Kawaida, T. Nagai, Y. Shirase, J. Inukai
Fukuoka, JP

P310 **Static Wetting on Patterned Liquid Surfaces**

Hongyu Zhao, X. Zhang, G. Wells, G. McHale, H. Kusumaatmaja, R. Ledesma-Aguilar
Edinburgh, GB

P311 **Use of lacunary POM-ILs for removal of heavy metals and organic pollutants from water through a flow reactor system**

Nico Achenbach, S. Rahali
Oppenheim, DE

P312 **Computational Study of Ionic Liquids containing Cyclic Alkylammonium Cations and Amino Acid-based Anions: Understanding Structure and Dynamics**

Raghu Nath Behera, K. Dubey
Zuarinagar, IN

P313	**Simulation of charged systems confined by conducting surfaces**	Alexandre P. dos Santos, I. M. Telles, Y. Levin Porto Alegre, BR
P314	**From structure-maker to structure-breaker: Viscosity of supercooled NaCl solutions**	Jan Eichler, Lyon, FR
P315	**Ionic Liquids under shear: An investigation using all-atom and coarse-grained modelling approaches**	Abbas Gholami, S. Kloth, Z.-H. Xu, M. Vogel, K. Kremer, T. Stuehn, J. F. Rudzinski Mainz, DE
P316	**Wave Mechanics in an Ionic Liquid Mixture**	Tim Groves, S. Perkin Oxford, GB
P317	**Understanding Composition-Dependent Behaviour in RbxNa1-x: Insights from Ab Initio-Accurate Molecular Dynamics Simulation**	Ayu Irie, A. Koura, K. Shimamura, F. Shimojo Los Angeles, US
P318	**Comparison of properties of the phosphonium ionic liquids mixed with water**	Mateja Jovanovi_, I. Stankovi_, M. Dasi_ Weinheim, DE
P319	**Unsupervised Machine-Learning hints at Quasi-Crystalline Ordering in the asymmetric Wigner Bilayer System**	Gerhard Kahl, B. Hartl, M. Mihalkovic Vienna, AT
P320	**Substituent effects on the physical properties of azole based ionic liquids**	Satoshi Kitaoka, Higashi-Hiroshima City, Hiroshima, JP
P321	**Ab initio analysis of collective dynamics in ionic and metallic melts**	Mariia Kopcha, T. Demchuk, I.-M. Ilenkov, T. Bryk Lviv, UA

P322 **Nanometric resolution of near-wall forces at the solid-electrolytes interface**

Guilhem Mariette, J. Comtet
Paris, FR

P323 **Ion-specific nanoscale friction in dense cement-like suspensions**

Guilhem Mariette, A. Fruh, B. Bresson, N. Sanson, J Comtet
Paris, FR

P324 **Effect of Trace Ions on Self-assembly of Ionic Surfactants in Ionic Liquids**

Shurui Miao, A. Albright, T. Youngs, K. Ma, G. Warr, S. Perkin, R. Atkin
Oxford, GB

P325 **Solvent Effects of Fluorinated Ionic Liquids on Photophysical Properties of π-Electron Extended Rhodamine Dyes**

Kaoru Nobuoka, S. Kitaoka
Oita, JP

P326 **Dynamical properties of liquid Fe-Light-Element mixtures under high pressure: molecular dynamics simulations with machine-learning interatomic potential**

Satoshi Ohmura, I. Kanemasu, K. Shimamura, F. Shimojo
Hiroshima, JP

P327 **Influence of Water on the Transport Properties of Ternary Mixtures with Triglyme and [Li][NTf2] by Means of Molecular Dynamics Simulations**

Jule Kristin Philipp, D. Paschek, R. Ludwig
Rostock, DE

P328 **A new generation of liquid metal ionic surfactants**

Selina Reigl,
Regensburg, DE

P329 **Modified Restricted Primitive Model with local dielectric saturation displays long-ranged cluster correlations at high salt concentrations**

David Ribar, C. Woodward, S. Nordholm, J. Forsman
Lund, SE

P330	**Impact of anion structure on interfacial stability in a localized high-concentration battery electrolyte**	Monika Schönhoff, D. Diddens, I. Cekic-Laskovic, M. Schönhoff Münster, DE
P331	**The Mechanism of NaCl Crystal Nucle-ation from Aqueous Solutions**	Chaitanya Jitendra Shah, A. Unni, S. Punnathanam Bengaluru, IN
P332	**Advancing iontronics: Unleashing the Potential of Microfluidic Memristors in Computing**	Nico Stuhlmüller, R. van Roij, M. Dijkstra Utrecht, NL
P333	**Machine Learning many-body potentials for charged colloidal suspensions**	Thijs ter Rele, G. Campos-Villalobos, R. van Roij, M. Dijkstra Utrecht, NL

Supercooled liquids, glasses and gels — TENT

P334	**Anomalous Screening Behavior of Keggin Ions**	Thomas Tilger, E. Ohnesorge, R. von Klitzing Darmstadt, DE
P335	**Glass transition of a colloidal monolayer in an external periodic potential**	Abolfazl Ahmadirahmat, T. Franosch, M. Caraglio, V. KRAKOVIACK Innsbruck, AT
P336	**Cooperative behaviour triggered by thermally activated jumping motion in Johari-Goldstein relaxation**	Takeaki Araki, M. Saito Kyoto, JP

P337 **Euclidean Random Matrix models for athermal amorphous solids: Un-jamming transition in simulations of strong disorder**

Philipp Baumgärtel, F. Vogel, M. Fuchs
Konstanz, DE

P338 **Anomalous Isothermal Compressibility and the Formation of Hydrogen-Bond Polymeric Chains in Supercooled Propan-1-ol**

Robin Cortes-Huerto,
Mainz, DE

P339 **Hyperuniformity in disk packings between extremes of order and disorder**

Duc Dam, T. Kawasaki, A. Ikeda, K. Miyazaki
Nagoya, JP

P340 **Glass polyamorphism in gallium: Two amorphous solid states and their transformation on the potential energy landscape**

Yizhi Liu, G. Sun, L. Xu
Mainz, DE

P341 **Unveiling a medium-range structural commonality of amorphous alloys**

Kengo Nishio, A. K. Augustin Lu
Tsukuba, JP

Active matter and driven systems

P342 **Experimental identification of topological defects in 2D colloidal glass**

Vinay Vaibhav, A. Bera, A. C. Y. Liu, M. Baggioli, P. Keim, A. Zaccone
Milan, IT

P343 **A second glass transition observed in single-component homogeneous liquids due to intramolecular vitrification**

Klaas Wynne,
Glasgow, GB

P344	**Non-equilibrium Thermodynamics of Phase Separations in Scalar Active Matter**	Amir Abbasi, R. Netz Berlin, DE
P345	**Phase separation dependent active motion of Janus lipid vesicles**	Laura Alvarez, A. Baron, D. Matoz, G. Wolfisberg, J. C. Baret, E. Dufresne, L. Alvarez Pessac, FR
P346	**Self-propulsion of all-aqueous droplets induced by liquid-liquid phase separation**	Christina Chi Ki Au Yeung, H. C.g Shum Hong Kong, HK
P347	**Crowding effects in nonreciprocal active mixtures**	Lucas Gabriel Bezerra de Souza, Göttingen, DE
P348	**Motion and interactions of anisotropic active 3d printed colloids**	Silvana Caipa, Leiden, NL
P349	**Drag forces of active Brownian particles in three dimensions**	Pia Fleischmann, F. Sammüller, M. Schmidt Bayreuth, DE
P350	**Collective motion mechanism of self-propelled camphor sheets on the water surface**	Masanori Fujinami, S. Takayama, T. Nomoto Chiba, JP
P351	**Neuroevolution of Decentralized Decision-Making in N-Bead Swimmers leads to Scalable and Robust Collective Locomotion**	Benedikt Hartl, M. Levin, A. Zöttl Vienna, AT
P352	**Evolutionary Implications of Multi-Scale Intelligence**	Benedikt Hartl, S. Risi, M. Levin Vienna, AT
P353	**Can a liquid coexist with a colder gas?**	Lukas Hecht, I. Dong, B. Liebchen Darmstadt, DE

P354 **Emergence of Chemotactic Strategies with Multi-Agent Reinforcement Learning**

Christian Holm, C. Lohrmann, C. Holm
Stuttgart, DE

P355 **Space/time coupling between plastic activities in steady state flow of disordered solids**

Yonglun Jiang, L. Berthier
Montpellier, FR

P356 **Coarsening of colloidal particles in the chiral active fluid**

Pragya Kushwaha, S. Maity, S. Puri, V. Chikkadi
Pune, IN

P357 **Active mucus–cilia hydrodynamic coup-ling drives self-organization of human bronchial epithelium**

Etienne Loiseau,
Marseille, FR

P358 **Influence of physical interactions on spatiotemporal patterns**

Chengjie Luo, L. Menou, D. Zwicker
Göttingen, DE

P359 **Interplay between an absorbing phase transition and synchronization in a driven granular model**

Raphaël Maire,
Paris, FR

P360 **Successful training a triangular swim-mer: a genetic algorithm approach**

Ruma Maity, M. Huebl, B. Hartl, G. Kahl
Vienna, AT

P361 **Navigation of a pair of chiral squirmers in a chemical landscape**

RUMA MAITY, P. S. Burada
Vienna, AT

P362 **Universal symmetry of optimal control at the microscale**

Samuel Monter, S. A. M. Loos, F. Ginot, C. Bechinger
Konstanz, DE

P363	**Self-Solidifying Active Droplets Showing Memory-Induced Chirality**	Aritra Kumar Mukhopadhyay, Darmstadt, DE
P364	**Active particles learn to forage, cooperate and avoid crowding**	Mahdi Nasiri, E. Loran, M. Cordts, B. Liebchen Darmstadt, DE
P365	**Collective mechano-response dynamically tunes cell-size distributions in growing bacterial colonies**	Gia Huy Philipp Nguyen, R. Wittmann, H. Löwen, A. Sengupta Düsseldorf, DE
P366	**Spatiotemporal patterns in cyclic Potts model**	Hiroshi Noguchi, F. van Wijland, J.-B. Fournier Tokio, JP
P367	**Collective motion mechanism of camphor boats from measurements of surface tension and surface convection**	Yuto Onishi, T. Nomoto, M. Fujinami Chiba, JP
P368	**Controlling and designing active flow**	Arghavan Partovifard, H. Stark Berlin, DE
P369	**Clustering and solutal convection in droplet microswimmers**	Prashanth Ramesh, C. C. Maass Enschede, NL
P370	**Interface Motion in Non-Homogenous and Driven Systems.**	Jacopo Romano, B. Mahault, R. Golestanian Göttingen, DE
P371	**Intermediate scattering function of a gravitactic circle swimmer**	Regina Teresa Rusch, T. Franosch, O. Chepizhko Innsbruck, AT

P372 **Tracking and analysis of active droplet dynamics: from image processing to non-equilibrium statistical physics**

Matteo Scandola, M. Hanczyc, R. Löffler, R. Menichetti, R. Potestio
Trento, IT

P373 **Structural and dynamical behaviour of confined squirmer-like microswimmers under the effect of a gravitational field**

Horacio Serna, C. M. Barriuso Gutierrez, J. M. Roca, M. Polin, I. Pagonabarraga, C. Valeriani
Madrid, ES

P374 **Microswimmers moving in binary mixture of passive colloids : Dynamics and Interactions.**

Venkata Manikantha Sai Ganesh Tanuku, V. M. S. G. Tanuku
Mainz, DE

P375 **Active pattern formation emergent from single-species nonreciprocity**

Michael te Vrugt,
Mainz, DE

P376 **Nonreciprocal collective dynamics in a mixture of phoretic Janus colloids**

Gennaro Tucci,
Göttingen, DE

P377 **Multifarious and Non-Reciprocal Matter for Information Storage and Processing**

Tim Veenstra, G. Campos Villalobos, R. van Roij, M. Dijkstra
Utrecht, NL

P378 **Mechanism of liquid marble motion by non-invasive measurements of surface tension and surface convection**

Haruka Yamaguchi, T. Nomoto, M. Fujinami
Chiba, JP

P379 **Spherical microswimmers in polymer solutions: Bridging the gap between continuum hydrodynamics and active Brownian particle description**

Andreas Zöttl,
Vienna, AT

Author Index

Abbasi, A.	P344
Abdelghani Idrissi, S.	T052
Abujetas, D.R.	P082
Achenbach, N.	P311
Aditya, A.	P161
Agg, K.	T078
Agrawal, A.	T023
Ahlskog, M.	P285
Ahmadirahmat, A.	P335
Ahmed, H.B.	T053
Ahrens, H.	T076
Akhundzada, S.	T010
Akiyama, R.	P130
Akiyama, R.	P213
Akiyama, R.	P191
Alamcheril, M. P.	P094
Albright, A.	P324
Algaba, J.	P112
Almudallal, A.	T058
Alvarez, L.	P345
Amann-Winkel, K.	T116
Amon, A.	T052
Andrienko, D.	P266
Andrienko, D.	P164
Anquetil-Deck, C.	P182
Aouadi, B.	P103
Aprili, C.	P286
Aragonés, J.	P096
Arai, N.	P081
Arai, S.	P130
Arai, S.	P192
Arai, N.	P232
Araki, T.	P024
Araki, T.	P187
Araki, T.	P336
Araújo, N. A. M.	P126
Arauz Moreno, C.	T048
Argudo, P. G.	P088
Arifi, A.	T028
Athani, S.	T120
Atkin, R.	P324
Au Yeung, C. C. K.	P346
Augustin Lu, A.K.	P341
Azarpour, A.	P001
Azizi, I.	P002
Badr, R.	P259
Baggioli, M.	P342
Baigl, D.	P306
Bair, C.	P247
Bakó, I.	P133
Bakó, I.	P099
Ballin, E.	P193
Bandyopadhyay, S.	P194
Banerjee, V.	T082
Bantysh, O.	P162
Baptista, L. A.	P195
Barbosa, M.	P151
Baret, J.C.	P345
Barile, B.	P085
Baron, A.	P345
Barraud, E.	P196
Barriuso Gutier. C.M.	P373
Barthel, E.	P250
Bassu, G.	P003
Baué, J.-T.	P294
Bauer, J.	P197
Bauer, R.	P110
Bauer, R.	T115
Baumgärtel, P.	P337
Beauvois, A.	T123
Bechinger, C.	P030
Bechinger, C.	P362
Bechinger, C.	T106
Bechinger, C.	P011
Bechstein, R.	T087
Becker, M. R.	P248
Becker, M.R.	P296
Bedolla-Mont. E. A.	P004
Behera, R. N.	P312
Bek, M.	P048
Bellezza, H.	P142
Benedetti, F.	P005
Benichou, E.	T020
Bera, A.	P342
Bercea, M.	P123
Bercea, M.	P220
Berger, R.	P148
Berger, R.	T093
Berglez, T.	P006
Berner, F.	P100
Berressem, F.	T045
Berthelard, R.	P115
Berthier, L.	P355
Berthoumieux, H.	T022
Bertin, V.	T090
Besenius, P.	P203
Bessega, M.	P049

Bessho, H. P287
Betti, L. P250
Beyer, D. P198
Beyer, D. T042
Bezerra de Souza, L. G. P347
Bhargava, A. P288
Bhattacharyya, S.M. T131
Bhaumik, H. T120
Bianchi, E. P005
Bianchi, E. P007
Bianchi, E. P028
Bianchi, E. P083
Billard, I. P150
Billard, I. T059
Billard, I. T123
Bista, P. P277
Biswas, S. P230
Biswas, T. P084
Blanco, P. M. P198
Blanco, D. A. P098
Blanco, P. P215
Blanco, P.M. T041
Blas, F. J. P112
Blazquez, S. P112
Blazquez, S. P141
Bocquet, L. T052
Boggon, C. P172
Bohinc, K. P006
Boire, A. T043
Bolhuis, P. T103
Bonhomme, O. T020
Bordin, J. R. P101
Bossert, M. T124
Bouchet, F. T025
Bouhallab, S. T043
Boulogne, F. P017
Bouret, Y. P250
Bove, L. E. T018
Bowles, R. P008
Bozic, A. P007
Brader, J. P009
Brader, J. P016
Bradley, N. P153
Branco, L. C. P135
Braunschweig, B. T091
Bresme, F. P146
Bresme, F. P305
Bresson, B. P323
Brevet, P.-F. T020
Briois, V. T123
Brozik, J. P085
Bryk, T. P321
Brzezinski, M. P088
Bui, A. P102
Buonaiuto, L. T091
Burnett, H. T122
Butt, H.J. P277
Butt, H.J. P031
Butt, H.J. P148
Butt, H.-J. P268
Butt, H.-J. P280
Butt, H.-J. T029
Butt, H.-J. T093
Buzzaccaro, S. P049
Buzzaccaro, S. P010
Caggioni, M. P001
Caipa D. J. Kraft, S. P348
Camerin, F. P174
Camp, P.J. P153
Camp, P. P200
Campos Villalob. G. P377
Campos-Villalob. G. P333
Campos-Villalob. G. T081
Cantat, I. P289
Cantat, I. T072
Cantat, I. P294
Caraglio, M. P335
Carbone, P. T122
Carder, J. P085
Carlsson, J. P217
Carter, A. P147
Cartier, A. T064
Caspers, J. P011
Castagnède, A. P012
Castagnède, A. T036
Caupin, F. P115
Cekic-Laskovic, I. P330
Cerar, J. P103
Cerdeirina, C. P104
Cetinkaya, M.C. P167
Chacón, E. P305
Chakrabarti, D. T030
Chang, Y.-P. T115
Chapuis, N. T052
Charlaix, E. P251
Chattopadhyay, J. P163
Chauhan, K. P203
Chen, X. P199
Chen, R. P055
Chen, W. P088
Chen, C. P249

Chepizhko, O.	P371
Chikkadi, V.	P356
Chikkadi, V.	T131
Cimurs, J.	P086
Cleaver, D.	P182
Clowe-Coish, C.	T009
Clowe-Coish, C.	T009
Coe, M.	T088
Coelho, R.C.V.	P126
Coelho, R.C.V.	P186
Coelho, R.	P273
Cohen-Addad, S.	T075
Cohen, C.	P250
cokor, E.	P181
Coldstream, J.	P200
Combet, S.	P221
Comtet, J.	P322
Comtet, J	P323
Comtet, J.	T064
Cooper, S.	P128
copar, S.	P021
Copar, S.	P007
Cordero-Sánch. S.	P274
Cordts, M.	P364
Cortes-Huerto, R.	P195
Cortes-Huerto, R.	P201
Cortes-Huerto, R.	P338
Cortes, D.	P280
Coslovich, D.	P253
Coslovich, D.	T098
Coupette, F.	P154
Courbin, L.	T053
Cousin, C.	T123
Cox, S.	P102
Cramail, C.	P251
Cremer, P.	T063
Cross, B.	P251
Crothers Mchem, R.	T033
Curran, A.	P044
Czodrowski, P.	P098
Dai, Z.	P257
Dam, D.	P339
Danel, Z.	P202
Daoulas, K.	P203
Dargent, E.	P204
Das, S.	P047
Dasi_, M.	P318
Datta, R.	T045
Davis, D.	P252
Davitt, K.	T124
de Beer, S.	T091
de Graaf, J.	P066
de Jager, M.	P015
de la Cotte, A.	T050
de la Cotte, A.	T102
de la Torre, J.A.	P042
de las Heras, D.	T010
de las Heras, D.	T069
de Lucas, M.	P141
De Mello, M.	P187
de Souza Braga N.	T123
Debenedetti, P.	T003
Debnath, T.	P087
Debnath, A.	P105
Degen, P.	P014
Dehaghani, Z.A.	P189
Del Monte, G.	P015
Delance, L.	P290
Delbreilh, L.	P204
Dellago, C.	P129
Delpouve, N.	P204
Demchuk, T.	P321
Deshpande, S.	P249
Deville, S.	P293
Dhiman, S.	P094
Di Bernardo, E.	P016
Diaz, J. M.	T008
Díaz, D.	P288
Dickbreder, T.	T087
Diddens, D.	P330
Diekmann, J.	P106
Dijkstra, M.	P004
Dijkstra, M.	P174
Dijkstra, M.	P332
Dijkstra, M.	P333
Dijkstra, M.	P377
Dijkstra, M.	T004
Dijkstra, M.	T081
Dillenburg, R. F.	P207
Dionísio, M.	P135
Dirindin, M.	P253
Ditz, N.	P011
Dobnikar, J.	P205
Dobnikar, J.	T012
Dockal, J.	P107
Dong, J.	P055
Dong, I.	P353
Doostmohammadi	T056
Doré, C.	T127
dos Santos, A. P.	P313
Douglas, J.	P214
Dowding, P.	P200

Doye, J.	T035
Drevensek-Olenik	P181
Drummond Young	P206
Dryfe, R.	T122
Du Roure, O.	P058
du Roure, O.	T005
Dubey, K.	P312
Dufrêche, J.-F.	T059
Dufresne, E.R.	P092
Dufresne, E.	T014
Dufresne, E.	P345
Dullens, R.P.A.	P044
Dullens, R.	T033
Dünweg, B.	P013
Dutta, S.	P164
Dúzs, B.	P088
Dyagala, S.	P230
Dyre, J.C.	T099
Ehresmann, A.	T010
Eichler, J.	P314
Eiser, E.	T007
Ejtehadi, M.R.	P189
Eklund, T.	T116
Entgelmeier, L.	P144
Espanol, P.	P042
Esparza-Schulz	P274
Esteves, C.V.	P135
Evans, R.	T088
Faers, M.	P055
Farimani, R. A.	P189
Farimani, R. A.	P190
Farrokhzad, F.	T010
Fayen, E.	P017
Felisari, L.	P153
Fernández Rico, C.	T016
Fernandez-N. A.	T102
Fernández-N. A.	T050
Fernandez-Nieves, A.	P048
Ferrarini, A.	P238
Figueired, F.	P255
Figueirinhas, J.L.	P135
Fijan, D.	P062
Filion, L.	P015
Filion, L.	P069
Filion, L.	P012
Filion, L.	P017
Findlay, E.	P208
Fischer, T.	T010
Fleischmann, P.	P349
Foffi, G.	P017
Foffi, G.	T120
Forsman, J.	P329
Forsman, J.	T112
Foschino, E.	P071
Foschino, E.	P209
Foster, A.	T087
Fournier, J.-B.	P366
Franiatte, S.	T092
Franosch, T.	P335
Franosch, T.	P371
Fresnais, J.	P250
Friedrich, H.	P071
Frigeri, A.	P085
Fröba, M.	P110
Fruh, A.	P323
Fuchs, M.	P018
Fuchs, M.	P022
Fuchs, M.	P051
Fuchs, M.	P337
Fuchs, M.	P011
Fujinami, M.	P367
Fujinami, M.	P378
Fujinami, M.	P350
Fujita, M.	P019
Fujita, M.	P064
Fukao, K.	P169
Fukao, K.	P210
Fung, C.	T111
g Shum, H.C.	P346
Gaichies, T.	P306
Galvani, N.	T075
Gámez, .	P141
Gandhi, P.	P165
Gans, A.	P294
García-Hernández	P274
Gardré, L.	P254
Gellert, F.	T076
Gervasone, R.	P049
Ghazoyan, H.	P125
Ghazoyan, H.	P108
Gholami, A.	P315
Giacomello, A.	P255
Giebelmann, J.	P109
Gierke, A.	T115
Gießelmann, N.	P110
Gilbert, E.	P291
Ginot, F.	P011
Ginot, F.	P362
Ginot, F.	T106
Giomi, L.	T102
Giovambattista, N.	T119

Girard, M. P207
Girgin, O. P167
Giulini, M. T039
Glassmeier, F. T027
Glotzer, S. P062
Gnidovec, A. P007
Gnidovec, A. P021
Godinho, M. H. T026
Godinho, M. H. P135
Golestanian, R. P370
Gonzalez Lopez, C. P114
Gora, M. P272
Góra, M. P211
Goswami, A. P111
Goswami, Y. T120
Goy, C. T115
Grabowska, J. P112
Grad, J.N. P198
Gradinaru, L.M. P220
Gradinaru, V.R. P220
Grelet, E. P166
Grelet, E. T031
Gresham, I. P255
Grimm, N. P022
Grisenti, R. T115
Großmann, R. T107
Groves, T. P316
Grzelka, M. P256
Guidolin, C. T075
Gupta, S. P257
Gurin, P. P175
Gurin, P. P176
Guven, F. P167
Haataja, M. P095
Häfner, G. T017
Halun, J. P202
Hanczyc, M. P372
Hansen-Goos, H. P265
Hardeman, R. P069
Harder, M. T115
Hardt, S. P268
Harries, D. T019
Härtel, A. T108
Harth, K. P267
Hartl, B. P319
Hartl, B. P351
Hartl, B. P352
Hartl, B. P360
Hatta, E. P023
Hauer, L. P258
Hauer, L. P259
Hauer, L. T089
Hayashi, T. P090
Hayrapetyan, A. P178
Head, L. T127
Hecht, L. P353
Hedenqvist, M. P217
Hegemann, D. P211
Helm, C. T076
Hendrikse, R. P292
Henkel, C. T090
Hermann, S. P053
Hermann, S. P045
Hermann, S. P059
Hermann, S. T032
Hermann, S. T069
Hernández ty, C. P217
Heuberger, M. P211
Heuberger, M. P272
Heuvingh, J. P058
Hillmann, L. P072
Hinduja, C. P148
Hinduja, C. T093
Hipps, KW P085
Hirata, K. P024
Hirschmann, F. P097
Hishida, M. P113
Hockmann, A. P330
Hoffmann, I. P221
Hoffmann, I. P297
Höfken, T. P048
Höfling, F. T107
Hofmann, K. P025
Hohenschutz, M. P114
Holm, C. P260
Holm, C. P354
Holm, C. T042
Holm, C. P246
Hoppmann, L. P144
Hormozi, M. P261
Hosokawa, S. P145
Hotton, C. P221
Houston, J. P048
Howard, M. P031
Huang, D. P149
Huang, D. P168
Huebl, M. P360
Hulsen, I.E. P209
Hwan Kim, K. P118
Hyyryläinen, E. P285
Ianiro, A. P209
Ibarra, I. A. P274

Ignés-Mullol, J.	P162
Ignés-Mullol, J.	T080
Ikeda, A.	P339
Ilenkov, I.-M.	P321
Impéror-Clerc, M.	P017
Inukai, J.	P309
Ipayan Chakrabarti	T006
Irie, A.	P317
Isa, L.	P172
Isabella, B.	P293
Ishizeki, K.	P121
Issenmann, B.	P115
Ito, Y.	P169
Ito, K.	P212
Ito, K.	P239
Iwashita, T.	P213
Izzet, A.	P291
Izzo, D.	P026
Jack, R.	P055
Jack, R.	P278
Jang, Y.	P270
Jannin, L.	P294
Jansen, S.	P077
Janssen, L.	P072
Jawerth, L.	P093
Jeanneret, R.	T067
Jiang, S.	P295
Jiang, Y.	P355
Jin, J.	T099
Jinnouchi, R.	P129
Jo, W.	P110
Joly, L.	T077
Joly, L.	P254
Jonas, H.	T103
Jónsson, H.	P111
Jose, M.	P027
Jovanovi_, M.	P318
Joy, A.	P080
Jülicher, F.	T002
Jullien, M.C.	P294
Jullien, M.C.	T053
Jullien, M.C.	T052
Jung, S.H.	T105
Jyothilal, H.	P262
Kádár, R.	P048
Kageshima, M.	P116
Kahl, G.	P360
Kahl, G.	P084
Kahl, G.	P319
Kampa, S.	P263
Kamsma, T.	T109
Kanemasu, I.	P117
Kanemasu, I.	P326
Kappl, M.	T029
Kappl, M.	P031
Karbowniczek, P.	P202
Karina, A.	T116
Karner, C.	P028
Kaur Sodhi, M.	P061
Kawaida, T.	P309
Kawasaki, T.	P287
Kawasaki, T.	P339
Kawasaki, T.	T101
Kawase, K.	P029
Keim, P.	P070
Keim, P.	P170
Keim, P.	P342
Khare, K.	P257
Khomenko, D.	T133
Kikugawa, G.	P192
Kinoshita, M.	P090
Kiseleva, M.	P279
Kitaoka, S.	P320
Kitaoka, S.	P325
Klapp, S.H.L.	T128
Klatt, M. A.	P247
Kloth, S.	P315
Knippenberg, T.	P030
Kobayashi, Y.	P081
Kobayashi, M.	P089
Kobayashi, Y.	P232
Kofke, D.	P214
Köglmayr, J.	P119
Köhler, M.	P151
Köhn, C.	P110
Kolli, H.B.	P196
Kono, T.	P120
Koochak, P.	P279
Kopcha, M.	P321
Kopecky, J.	P103
Kosovan, P.	P215
Kosovan, P.	P216
Ko_ovan, P.	T041
Kosovan, P.	P198
Ko_ovan, P.	T042
Koura, A.	P212
Koura, A.	P239
Koura, A.	P317
Kovács, Z.	P103
Koynov, K.	P280
Koynov, K.	P255
Kraft, L.	P264

Krakoviack, V.	P335
Kreienkamp, K.L.	T128
Kreissl, P.	P246
Kremer, K.	P195
Kremer, K.	P226
Kremer, K.	P315
Kresse, G.	P129
Kritika, K.	P031
Krüger, M.	P011
Kubo, Y.	P090
Kuhnhold, A.	P165
Kühnle, A.	T087
Kukharenko, O.	P226
Kulossa, M.	P171
Kumar, C.	P032
Kumar Mohapatra	P072
Kumar Nandi, U.	T114
Kumar Panda, S.	P047
Kumar Saha, S.	P230
Kumar Sahu, D.	P058
Kumar Saroj, S.	P302
Kumar Singh, A.	P180
Kumar, K.K.	P011
Kumar, A.	T015
Kunz, W.	P046
Kuroda, Y.	T101
Kürten, L.	T036
Kushwaha, P.	P356
Kusumaatmaja, H.	T089
Kusumaatmaja, H.	P310
Ku_wik, P.	T010
Kyakuno, H.	P121
Labousse, M.	P302
Lachet, V.	P196
Ladd Parada, M.	P217
Laird, B.	P265
Lansac, Y.	P270
Laroche, A.	T093
Lathia, R.	P033
Laurent, J.	T005
Le Bec, M.	P172
Le Breton, G.	T020
Lebreux, B.	P150
Ledesma-Aguilar, R.	P310
Lehmann, L.	P296
Lehmkühler, F.	P110
Lehmkühler, F.	T115
Lehmkühler, F.	T116
Lemke, E.	P207
Lemmens, P.	P173
Lenavetier, T.	T072
Lenz, M.	P058
Lenz, P.	P110
Leoni, F.	T132
Lequeux, F.	P290
Lesov, I.	P034
Levin, Y.	P218
Levin, Y.	P313
Levin, M.	P352
Levin, M.	P351
Levy, A.	T102
Lhermerout, R.	P251
Liebchen, B.	P353
Liebchen, B.	P364
Lieu, U.	P035
Likos, C.	P190
Likos, C.	P189
Likos, C.	P231
Likos, C.	P233
Lindhoud, S.	P216
Lindner, A.	T005
Liu, W.	P266
Liu, Y.	P340
Liu, A.C.Y	P342
Liverpool, T.	P055
Locatelli, E.	P007
Löffler, R.	P372
Lohrmann, C.	P260
Lohrmann, C.	P354
Lohse, D.	P136
Lohse, D.	P288
Lohse, D.	T074
Lohse, D.	T061
Loiseau, E.	P357
Loison, C.	P254
Loison, C.	T020
Loos, S.A.M.	P362
López-León, T.	T127
Loran, E.	P364
Lorenceau, E.	T048
Lorenceau, E.	P150
Lorenz, C.	P219
Löwen, H.	P038
Löwen, H.	P076
Löwen, H.	P077
Löwen, H.	T104
Löwen, H.	P143
Löwen, H.	P247
Löwen, H.	P365
Ludwig, R.	P327
Luksic, M.	P122
Luo, C.	P134

Luo, C. P358
Lupu, A. P123
Lupu, A. P220
Ma, K. P324
Maass, C.C. P369
Maass, C. T068
Mabit, T. T053
MacDowell, L.G. T094
Machado-Broch, A. P291
Mackay, E. P036
MacKay, E. T034
MacKay, E. T125
Madarász, Á. P099
Mahault, B. P370
Maire, R. P359
Maire, R. P017
Maity, S. P037
Maity, S. P356
Maity, R. P360
Maity, R. P361
Maity, S. T120
Majadi, M. P103
Malayil Kalathil, F. P297
Malek, S. T058
Malgaretti, P. T071
Malhotra, I. P038
Malikova, N. P221
Mancheno, O.G. P144
Mandalaparthy, V. P124
Manish Wani, Y. P031
Maniwa, Y. P121
Marbach, S. T034
Marbach, S. P036
Marbach, S. P206
Marbach, S. T125
Mariette, G. P322
Mariette, G. P323
Marín, Á. P091
Marin Aguilar, S. P039
Marín-Aguilar, S. P004
Marín-Aguilar, S. P174
Markarian, S. P108
Markarian, S. P125
Martens, M. P222
Martin, S. P265
Martina, R. P238
Martínez-Borquez P274
Martínez-Prat, B. T080
Martínez-Puig, J. P091
Martius, G. P179
Masuda, K. P223
Mathieu, V. P291
Matias, A. F. V. P126
Matias, A. F. V. P174
Matoz, D. P345
Matsuda, K. P121
Matsumoto, M. P120
Matsumoto, M. P240
Matsumoto, M. P303
Matsunaga, D. T005
Matsuzawa, T. P092
Matthes, J. P127
Matthews, L. P071
MB Gautham, S. P224
McBean, C. T095
McHale, G. P310
McNamee, C. T079
Meadows, J. P128
Meijer, J. -M. P040
Meijer, J.M. P072
Meijer, J. T061
Meinert, S.-M. P110
Mendoza, C. I P041
Menichetti, R. P372
Menichetti, R. T039
Menou, L. P358
Mériguet, G. T123
Merikoski, J. P285
Mezdari, S. P225
Miao, S. P324
Michot, L. T123
Middendorf, M. T113
Miguez, J. M. P112
Mihalkovic, M. P319
Miller, M. P128
Minagawa, Y. P089
Miyazaki, K. P287
Miyazaki, K. P339
Miyazaki, K. T101
Mizani, S. P175
Mizani, S. P176
Mocanu, F.C. T133
Mokhtari, Z. T107
Monago, C. P042
Monderkamp, P.A. P076
Monter, S. P362
Montero, A. M. P043
Montero de Hijes, P. P129
Monteux, C. T070
Monteux, C. P293
Moradi, H. P044
Moradimehr, S. P267

Morel, M.	P306
Moreno, A.J.	P234
Moretti, P.	P010
Morin, A.	P037
Mugele, F.	T091
Mukherji, D.	P195
Mukhopadhyay, A. K.	P363
Mukhopadhyay, M.	P136
Müller, J.	P045
Müller, E.	P046
Müller, M.	T017
Mullol, J.I.	P186
Muntón Díaz, J.	P082
Muntz, I.	P093
Musevic, I.	P177
Mussa, A.	P115
Muster, A.	P082
Naga, A.	P259
Naga, A.	T089
Nagai, T.	P309
Nagpal, S.	P033
Nakamura, Y.	P090
Nakamura, Y.	P130
nakshi L, Mee	T117
Nallet, F.	P221
Nambisan, J.	T102
Narambuena, C.F.	P198
Nasiri, M.	P364
Naskar, S.	P226
Navascués, P.	P211
Nelson, A.	P255
Neng, N.R.	P126
Neophytou, A.	T030
Neto, C.	P255
Netz, R.R.	P248
Netz, R.R.	P296
Netz, R.	P344
Netz, P.	P151
Nezbeda, I.	P139
Nguyen, G.H.P.	P143
Nguyen, H.	P168
Nguyen, G. H. P.	P365
Ni, R.	P078
Ni, R.	T100
Nicchia, G. P.	P085
Nieto-Draghi, C.	P196
Nikoubashman, A.	P031
Nikoubashman, A.	P081
Nikoubashman, A.	P164
Nikoubashman, A.	P194
Nikoubashman, A.	T045
Nilson, R.	T087
Nilsson, A.	P118
Nishi, K.	P210
Nishio, K.	P341
Noblin, X.	P250
Nobuoka, K.	P325
Noguchi, H.	P366
Nogueira, J.M.F.	P126
Noji, H.	P089
Nomoto, T.	P350
Nomoto, T.	P367
Nomoto, T.	P378
Nordholm, S.	P329
Notarmuzi, D.	P083
Noya, E.G.	P112
Noya, E.	T035
Nuthalapati, K.	P298
Oettel, M.	P097
Oettel, M.	P175
Oettel, M.	P176
Oettel, M.	P179
Ogunlana, A.	T095
Ohara, K.	P239
Ohmura, S.	P117
Ohmura, S.	P326
Ohnesorge, E.	P334
Oikonomeas-Kop. N.	T103
Okuzono, T.	P079
Okuzono, T.	P019
Okuzono, T.	P029
Okuzono, T.	P064
Okuzono, T.	P067
Olvera de la Cruz, M.	T084
Ondracuhu, T.	T092
Onishi, Y.	P367
Orlova, T.	P178
Ozbek, H.	P167
Pabshettiwar, C.	P246
Pagonabarraga, I.	P373
Palacci, J.	T126
Palberg, T.	P143
Palberg, T.	P152
Palberg, T.	P374
Paoluzzi, M.	T133
Papadopoulou, S.	T123
Paredes, G.	T092
Parekh, S. H.	P088
Partovifard, A.	P368
Paschek, D.	P327
Pascouau, C.	P227
Pascual, M.	T052

Pasquier, D. P196
Passade-Boupat, N. P290
Patrascu, C. P300
Patrascu, C. P299
Patterso, R.I.A. T107
Pawlus, S. P131
Pearce, D.J.G. T102
Pedersen, U.R. T099
Pepa, K. P062
Perkin, S. P155
Perkin, S. P275
Perkin, S. P316
Perkin, S. T078
Perkin, S. P324
Perrard, S. P302
Peschka, D. P269
Petrunin, A. P048
Pham, J. P259
Philipp, J. K. P327
Phillips, D. P200
Piazza, R. P010
Piazza, R. P049
Pietz, A. P132
Pineda Pineda, S. T041
Pineda, S.P. P198
Pineda, S. P215
Piroird, K. T048
Pisani, F. P085
Pitois, O. T075
Plapp, M. P270
Plati, A. P017
Plazanet, M. P297
Plazanet, M. P150
Plazanet, M. T059
Polin, M. P373
Poole, P. T118
Poole, P. T058
Potestio, R. P372
Potestio, R. T039
Pothoczki, S. P133
Potrc, M. P181
Pratap Singh, D. P047
Predota, M. P050
Puertas, A. M. P051
Punnathanam, S. P331
Puri, S. P356
Pusztai, L. P099
Qaisrani, M.N. P152
Qaisrani, M.N. P164
Qiang, Y. P134
Queiros-Campos, J. P250
Radenovic, A. T060
Rafayelyan, M. P178
Ragueneau, P. P115
Rahali, S. P311
Rahimzadeh, A. P228
Raju, L.T. P136
Ramaioli, M. P291
Ramesh, P. P369
Rank, L. P229
Raspaud, E. P270
Rasuceanu, I. P299
Rasuceanu, I. P300
Ratschow, A. P268
Ratschow, A. P277
Ravnik, M. T085
Ravnik, M. P177
Razavi, A. P301
Rebaque, D. P217
Reichman, D.R T099
Reigl, S. P328
Reijneveld, M. P052
Reimhult, E. P156
Reimhult, E. P057
Reinalter, L. P011
Reischl, B. T087
Remini, K. P269
Renard, D. T043
Rennick, M. T089
Requier, A. T075
Rescic, J. P006
Restagno, F. P017
Restagno, F. P270
Reuvekamp, S. T091
Ribar, D. P329
Ricard, A. P270
Richtering, W. P114
Rigoli, M. T039
Rigoni, C. P095
Rio, E. T075
Ripoll, M. T129
Risi, S. P352
Robitschko, S. P053
Robitschko, S. T032
Roca, J.M. P373
Rodrigues, M. P273
Rodríguez Arriag. L. P096
Rodríguez-Rodríg. J. P091
Rodríguez-Rodríg. J. P136
Rojas-Ochoa, L. P054
Rojo-Gonzalez, J. T050
Rollet, A.L. P221

Rollet, A.L.	T123
Rolley, E.	T124
Romano, J.	P370
Roosen-Runge, F.	T038
Roth, R.	P265
Rothörl, J.	P203
Royall, C.P.	T036
Royall, P.	P055
Ruan, H.	P207
Rücker, M.	P158
Rudiuk, S.	P306
Rudzinski, J. F.	P315
Ruiz-Ortega, L.	T095
Ruocco, G.	T133
Rusch, R. T.	P371
Russo, J.	P122
Russo, J.	T132
Ruzzi, V.	P010
Ruzzi, V.	P049
S. Andrade Jr., J.	P126
S. Burada, P.	P361
S. Froufe-Pérez, L.	P082
S. Shimamoto, D.	P056
S.Y. Wong, W.	T089
Sabath, F.	T087
Sacanna, S.	T001
Saeidiharzand, S.	P271
Safran, S.A.	T015
Saghaei, T.	P005
Saghaei, T.	P057
Sagués, F.	P186
Sagues, F.	T080
Sagués, F.	P162
Sahebmohammadi	P228
Sahin, O.	T095
Sahu, R.	T131
Saika-Voivod, I.	T058
Saika-Voivod, I.	T009
Saint-Eve, A.	P291
Saiter-Fourcin, A.	P204
Saito, M.	P336
Sakhawoth, Y.	P221
Salentinig, S.	T040
Salonen, A.	T075
Samanta, A.	P088
Sammalkorpi, M.	P095
Sammüller, F.	P045
Sammüller, F.	P053
Sammüller, F.	P059
Sammüller, F.	P119
Sammüller, F.	P127
Sammüller, F.	P263
Sammüller, F.	P349
Sammüller, F.	T032
Sammüller, F.	T069
Sanjay, V.	P288
Sanjay, V.	T074
Sanson, N.	P323
Santanach-Careras	P290
Santos, A. F. M.	P135
Santos, Y.A.	P151
Sanz, E.	P112
Sappl, L.	P231
Saric, A.	T011
Sastry, S.	T120
Sato, T.	P232
Savorana, G.	T055
Savulescu, G. C.	P060
Scacchi, A.	P095
Scalliet, C.	T097
Scandola, M.	P372
Schall, P.	T103
Schall, P.	T131
Schaub, E.	T072
Scheffold, F.	P082
Scheffold, F.	T130
Schelling, M.	P040
Schilling, T.	P154
Schirmacher, W.	T133
Schlaich, A.	T096
Schmeller, L.	P269
Schmid, F.	P094
Schmid, F.	T028
Schmid, F.	T045
Schmidt, M.	P045
Schmidt, M.	P059
Schmidt, M.	P119
Schmidt, M.	P127
Schmidt, M.	P263
Schmidt, M.	P349
Schmidt, M.	T032
Schmidt, M.	P053
Schmidt, M.	T069
Schmiedmayer, B.	P129
Schmitt, M.	P203
Schneck, C.	P233
Schneck, C.	P234
Schneider, S.	P235
Scholkopf, F.	T053
Schönhoff, M.	P144
Schönhoff, M.	P330
Schönhoff, M.	T113

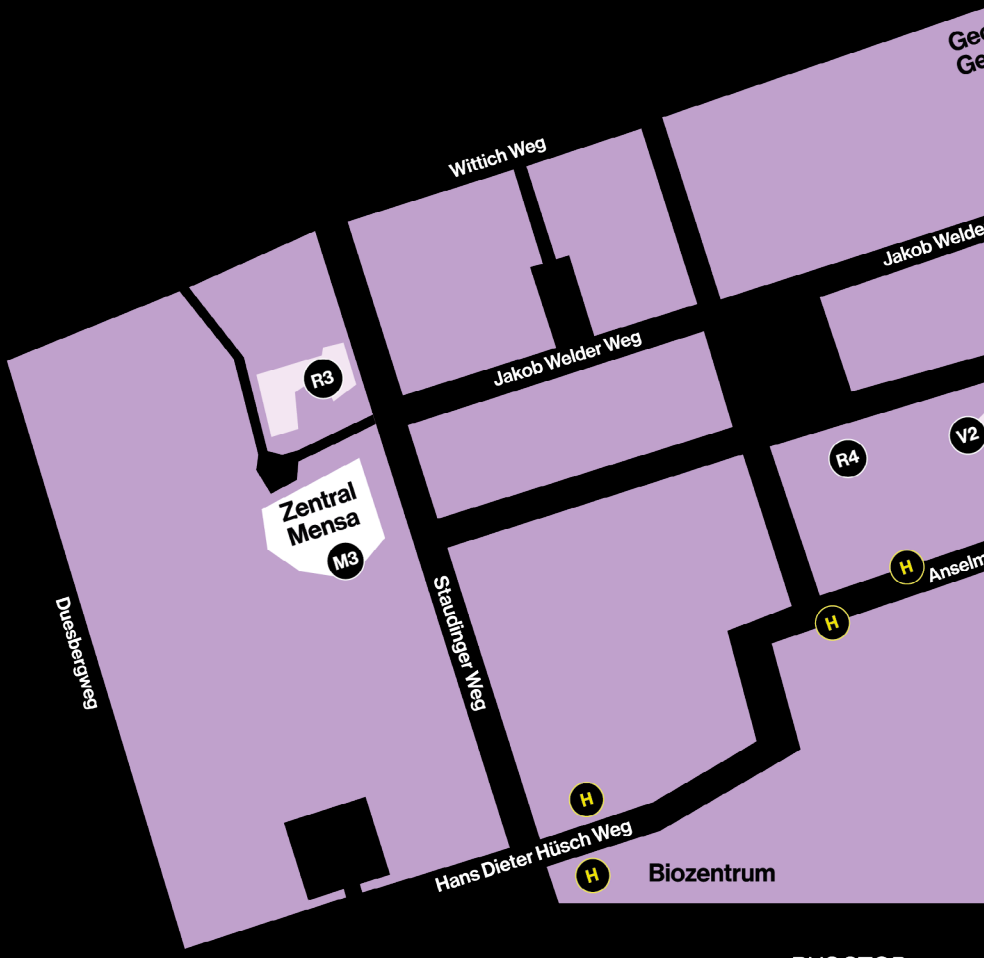
Schultz, A. P214
Schütz, U. P211
Sciancalepore, M. I. P153
Sciortino, F. T030
Sciortino, F. T057
Sciortino, F. T058
Sciortino, F. T132
Scotti, A. P048
Sebastião, P.J. P135
Secchi, E. P172
Secchi, E. T055
Seemann, R. P269
Sejour, B. T095
Selvin Robert, L. J. P177
Semwal, S. P080
Semwal, S. T009
Sen, P. P033
Sen Gupta, B. P252
Sen Gupta, B. T117
Sen, U. P136
Sengupta, A. P365
Serna, H. P373
Sethian, J. T073
Sevilla, M. P137
Sevilla, M. P138
Shah, C. J. P331
Shahinyan, G. P125
Shakhayeva, B. T091
Sharifi-Aghili, A. T089
Sharma, M. T131
Sharp, M. P221
Shendruk, T. P236
Shendruk, T. T127
Shimakura, H. P212
Shimakura, H. P239
Shimamura, K. P212
Shimamura, K. P239
Shimamura, K. P317
Shimamura, K. P326
Shimizu, I. P303
Shimojo, F. P212
Shimojo, F. P239
Shimojo, F. P317
Shimojo, F. P326
Shin, M. P118
Shirase, Y. P309
Shisler, K. P085
Shivashankar, G. V. T120
Shrivastav, G.P. P084
Shumaly, S. T093
Shvetsov, S. P178
Simmchen, J. T066
Simon, T. P110
Simon, A. P179
Simons, J. T046
Siria, A. T052
Sirieix Plenet, J. T123
Sirieix-Plenet, J. P221
Sivan, P. P217
Skvara, J. P139
Slaughter, C. T050
Sloutskin, E. T047
Smallenburg, F. P012
Smallenburg, F. P017
Smallenburg, F. P015
Smallenburg, F. P069
Smallenburg, F. T036
Smrek, J. P233
Snoeijer, J.H. T090
Sosa, M. D. T029
Southam, A. P272
Spathis, P. T124
Spichtinger, P. T028
Spindler, L. P181
Spivack, I. P062
Sprinkle, B. P036
Sprinkle, B. T034
Staniscia, F. P304
Stankovi_, I. P318
Sta_o, R. P237
Sta_o, R. T044
Stano, R. P215
Stano, R. P216
Sta_o, R. T041
Stark, H. P368
Steinforth, P. P144
Stelzl, L. P098
Stevens, T. P063
Stevens, T. P040
Stevens, L. P238
Stobiecki, F. T010
Stock, S. P228
Striker, N. P110
Stuehn, T. P315
Stuhlmüller, N. P332
Stuhlmüller, N. T010
Sturz, L. T013
Subert, R. T081
Suematsu, A. P191
Sugimoto, W. P239
Sulpizi, M. P238
Sulpizi, M. P152

Sumaiya, S.	T095
Sun, G.	P340
Szamel, G.	T133
Tadmor, R.	P276
Tahara, S.	P239
Takaya, T.	P240
Takayama, Y.	P192
Takayama, S.	P350
Takeda, M.	P191
Takemoto, M.	P019
Takemoto, M.	P064
Takeuchi, M.	P067
Talini, L.	P290
Tanda, S.	P140
Tanuku, V.M.S.G.	P374
Tänzel, V.	P154
Tarakina, N.	P241
Tarakina, N.	T065
Tarama, M.	P242
Tarazona, P.	P305
Tavares, J. M.	P243
Taylor, N.	P155
te Vrugt, M.	P375
Tea, L.	P221
Teague, T.	P062
Teixeira, P.	P182
Teixeira, P.	P273
Telles, I.M.	P313
ter Rele, T.	P333
Terao, T.	P065
Terry, A.	P048
Tesser, F.	T005
Tett, J.	P244
Thiele, U.	P106
Thiele, U.	T090
Thijssen, K.	T127
Thompson, T.	P187
Thongam, J.	P183
Thongam, J.	P184
Thorneywork, A.	P036
Thorneywork, A.	P206
Thorneywork, A.	P244
Thorneywork, A.	T125
Thorneywork, A.	T034
Tilger, T.	P334
Timonen, J.	P095
Tinao, B.	P096
Tinti, A.	P255
To, K.	P185
Tordjeman, P.	T092
Torres Andrés, J.	P186
Torres, P.B.	P198
Tosti Guerra, F.	P245
Tovey, S.	P354
Toyotama, A.	P019
Toyotama, A.	P029
Toyotama, A.	P064
Toyotama, A.	P067
Toyotama, A.	P079
Tran, L.	T049
Tran, B.	T040
Trejos Montoya, V. M.	P141
Trejos Montoya, V. M.	P274
Trinter, F.	T115
Tripathy, M.	P124
Trokhymchuk, A.	P122
Trosseille, J.	P142
Tschopp, S.	P068
Tucci, G.	P376
Tuinier, R.	P209
Tuinier, R.	P222
Tuinier, R.	P071
Turci, F.	T088
Turci, F.	P278
Turculet, D.	P275
Tyburski, R.	P118
Ueyoshi, R.	P210
Ulugöl, A.	P069
Unni, A.	P331
Urbaniak, M.	T010
Vaibhav, V.	P342
Vakeri, A.	T043
Valei, Z.	P236
Valente-Matias, D.F.	P126
Valeriani, C.	P373
Valizadeh, A.	P070
van der Gucht, J.	P136
van der Ham, S.	P174
van der Linden, M.	P136
van der Meer, B.	T033
van der Schoot, P.	T051
van der Vegt, N.	P124
van Hazendonk, L.	P071
van Kesteren, S.	T037
van Lente, J	P216
van Oostrum, P.	P057
van Oostrum, P.D.J.	P005
van Oostrum, P.	P156
van Roij, R.	T054
van Roij, R.	T109
van Roij, R.	P332
van Roij, R.	P333

van Roij, R. P377
van Wijland, F. P366
Varga, S. P176
Varga, S. P175
Varma, K. P092
Vasil'ev, A. P178
Veenstra, T. P377
Vega, C. P112
Vega, C. T021
Vega de las Heras, C. P141
Velay, M. T064
Velez, I. T080
Verneuil, E. P290
Verouden, T. P040
Verouden, T. P072
Vialetto, J. P306
Vilaplana, F. P217
Vincent, O. P142
Vinod, A. P276
Virnau, P. T045
Virnau, P. P203
Vis, M. P071
Vis, M. P209
Vis, M. P222
Vogel, P. P073
Vogel, P. P152
Vogel, M. P315
Vogel, F. P337
Voigtmann, T. P051
Vollmer, D. P259
Vollmer, D. P288
Vollmer, D. T089
Vollmer, D. T093
von Klitzing, R. P334
von Klitzing, R. P228
von Puttkamer-Luer. P143
Vrban, F. I. P074
Vuckovac, M. P307
Vutukuri, H.R. P174
W. Torre, K. P066
Wagner, J. P171
Wagner, B. P269
Wahlström, N. P217
Walker, A. P075
Walther, A. P088
Wang, C. P157
Wang, Y. P282
Wang, Y. P283
Wang, Y. T093
Warr, G. P324
Weber, A. P057
Weber, S. P277
Weeber, R. P246
Weimar, J. P097
Wells, G. P310
Wensink, G. P158
Wilding, N. P278
Wilding, N. T088
Willems, V. P345
Willers, T. P288
Wilson, M. P168
Wilson, M. P292
Wilson, M. P128
Wilson, M. P187
Witt, M. P143
Wittmann, R. P247
Wittmann, R. P076
Wittmann, R. P077
Wittmann, R. P365
Wolfisberg, G. P345
Wong, W. P279
Wong, W. P259
Wood, H. T122
Woodward, C. P329
Wu, L. P188
Wynne, K. P343
Wynne, K. T024
Wyszynski, L. P144
Xia, X. P078
Xiang, Y. P280
Xie, Y. P281
Xu, L. P340
Xu, L. T086
Xu, Z.-H. P315
Yadav, V. P159
Yadav, V. P160
Yamaguchi, H. P378
Yamamoto, S. T079
Yamamoto, T. P121
Yamanaka, J. P019
Yamanaka, J. P029
Yamanaka, J. P064
Yamanaka, J. P067
Yamanaka, J. P079
Yanagisawa, M. P223
Yanagishima, T. T132
Yanez-Aulestia, A. P274
Yang, Y. P282
Yang, Y. P283
Yang, Y. P308
Yasuda, I. P232
Yasuoka, K. P232

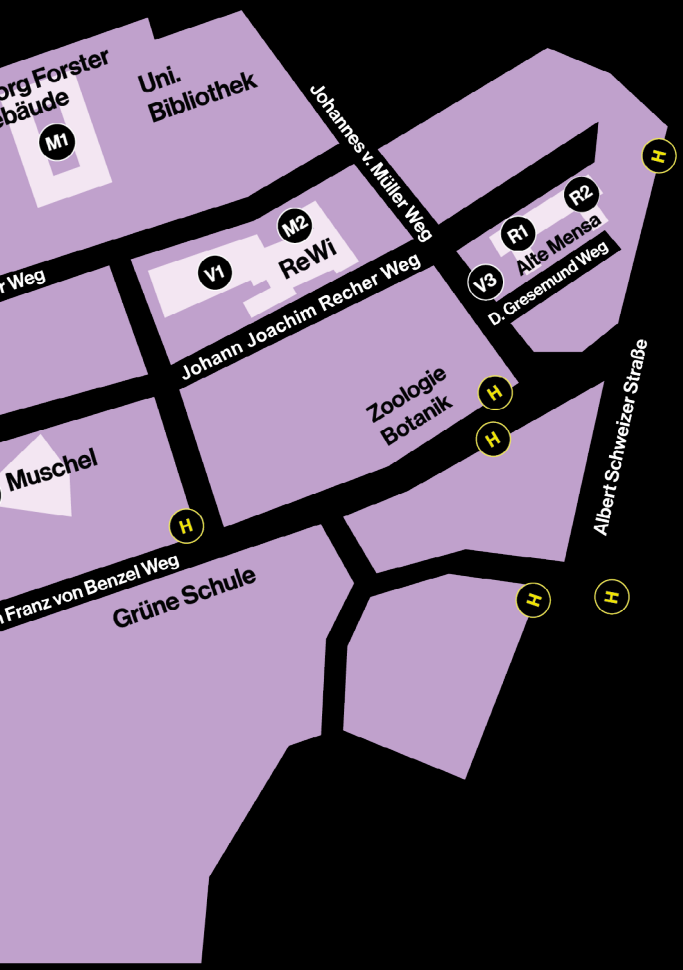
Yeomans, J.	T062
Yethiraj, A.	P080
Yethiraj, A.	T009
Yetkin, M.	P031
Yildirim, C.H.	P143
Yildiz Ozbek, S.	P167
Yin, Z.	T115
Yodh, A.	T050
Yokoyama, T.	P081
Yolotzin García Mos.	P020
Yoshida, K.	P145
Yoshida, K.	P309
Yoshidome, T.	P192
Yoshimori, A.	P090
Yoshimori, A.	P130
Yoshinaga, N.	P035
Yoshioka, J.	P169
Yoshioka, J.	P210
Youngs, T.	P324
Yun, S.	P284
Zaccarelli, E.	P229
Zaccone, A.	P342
Zalden, P.	T116
Zalewska, K.	P135
Zamponi, F.	T133
Zanchetta, G.	P001
Zappone, B.	T083
Zerón, I.M.	P112
Zhang, C.	P082
Zhang, X.	P310
Zhao, G.	P146
Zhao, Y.	P195
Zhao, Y.	P203
Zhao, H.	P310
Zills, F.	T110
Zimmermann, T.	T069
Zöttl, A.	P231
Zöttl, A.	P233
Zöttl, A.	P351
Zöttl, A.	P379
Zöttl, A.	T005
Zwicker, D.	P134
Zwicker, D.	P358

Venue Area



BUS STOP

H **Line** 6, 9, 54, 55, 56, 57, 58, 630



VENUE

- V1 ReWi
- V2 Alte Mensa
- V3 Muschel

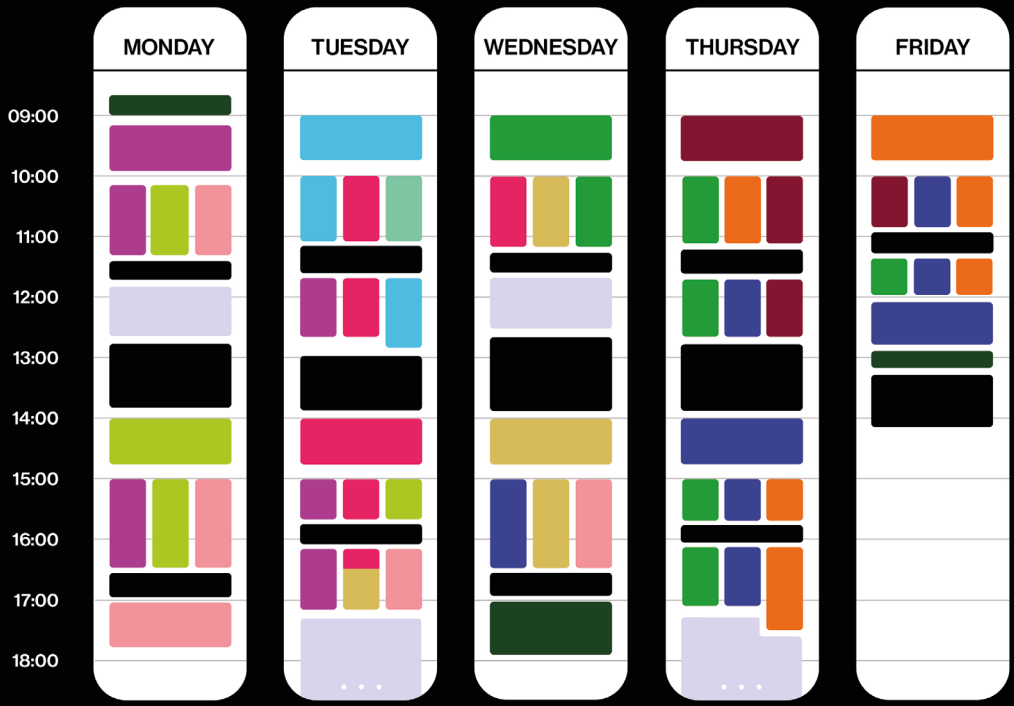
MENSA

- M1 Mensa Bambus
- M2 Mensa ReWi
- M3 Mensa Main

RESTAURANT

- R1 Baron
- R2 Kultur Cafe
- R3 Bali Bistro
- R4 Diwan

Schedule


MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
Water, mixtures and solutions
Supercooled liquids, glasses and gels
Polymers, polyelectrolytes and biopolymers
Colloids
Active matter and driven systems
Liquid matter in energy, environmental and climate science
Prize lecture and general remarks
Liquid interfaces, foams and emulsions
Ionic liquids, electrolytes and liquid metals
Liquids in confinement, solid-liquid interfaces and wetting
Biological fluids and liquid-liquid phase separation
Liquid crystals and anisotropic fluids
Posters
Coffee break, Lunch

Imprint

Max Planck Institute for Polymer Research

Postal Address

P.O. Box 3148
D-55021 Mainz

Ackermannweg 10
D-55128 Mainz

Email / Homepage
info@mpip-mainz.mpg.de
www.mpip-mainz.mpg.de

Director
Prof. Dr. Hans-Jürgen Butt

LMC 2024

Mainz, September 22 – 27, 2024

Design and Layout

Gina Landa
www.ginalanda.com
+4915757169904

Henri Aalken
www.aalken.eu
+4915739324486

Legal Notice