

# International Association of Colloid and Interface Scientists

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I prefer to read the pdf.



# From the IACIS President



Happy New Year 2025 to all our members. I hope everyone had a restful break. Here in Australia of course it is summer, so the end of the year coincides with vacation season. I am just returning to work after undertaking extensive studies of the properties of the sedimentation, wetting, spreading and drying behaviour of non-aqueous dispersions (re-oiling our verandah), adhesion of polymers and ceramics (resealing our shower recess), and fouling of porous media (replacing our pond pump and filter). I also found a little time to look at our lotus flowers bloom among its non-wetting leaves. Unfortunately, I could not carry out my planned investigation of capillary rise phenomena in packed beds as the beaches around Sydney were full of tourists. I commend it to your study whenever you get the opportunity.

2025 is, of course, an IACIS conference year. I trust everybody received Wuge and Alidad's message last week and has

- 1. Set aside time from June 22-26 to come to Edmonton, Alberta, Canada for IACIS 2025, and
- 2. Will be submitting an Abstract by the deadline of January 31 via the conference website <a href="https://colloids2025.com/">https://colloids2025.com/</a>

I look forward to seeing you there and to hearing about developments in colloid and interface science from around the world including the plenary lecture from our distinguished *IACIS Lifetime Achievement Award* recipient, Prof. Dominique Langevin.

Details of nomination process for the *IACIS Emerging Investigator Awards* are also now available on the IACIS2025 website shortly. Please encourage eligible colleagues to apply here (<a href="https://colloids2025.com/awards/">https://colloids2025.com/awards/</a>) by March 15.

I am very pleased to welcome \_from Sungkyunkwan University, Suwon, Republic of Korea. Prof. Kim is very active in microfluidics, colloid engineering and nanofluids. He was chair of the recent Korean Colloid and Interface Symposium and is co-chair of the next Asian Conference on Colloid and Interface Science (ACCIS) at Yonsei University in Seoul this August <a href="http://www.accis2025.org/">http://www.accis2025.org/</a>. Our complement of co-opted Council members is now full, but the Council will be refreshed this year with elections to be held prior to our next General Assembly at IACIS2025 in Edmonton. Our Honorary Secretary will contact all members shortly, first to call for nominations, and then to hold the election for Council vacancies and for President-elect.

**Greg Warr** 

# FROM YOUR NEWSLETTER EDITOR



# Welcome to IACIS Newsletter 86

Happy 2025!

For our community there plenty of exciting events happening this year. In June we can meet during the IACIS conference in Edmonton. I am looking forward to that. In September the ECIS conference will be held in Bristol, one of my favourite places. I hope to meet many of you there.

If you have information to share, do contact me. If you have recent publications you would like to share, you can write a showcase for the newsletter.

Stay well and best regards, Your newsletter editor Saskia Lindhoud The deadline for abstract submission is fast approaching for the joint event of the 18th Int. Association of Colloids and Interface Scientists Conf. and the 99<sup>th</sup> ACS Colloids & Surface Science Symp. in Edmonton, CANADA.

Last day to submit your abstract is **Jan. 31**, so please visit <a href="https://www.colloids2025.com">www.colloids2025.com</a> for abstract submission instructions.

We have two new special sessions on industrial and the impact of AI on the field along with many of our usual tracks. Please see <a href="https://www.colloids2025.com">www.colloids2025.com</a> for more details.

See you in Canada!

Profs. Tian Tang and Alidad Amirfazli Conference Co-Chairs





# Announcing the IACIS Life Time Achievement Award winner

The IACIS Life Time Achievement Award (LTAA) recognizes a lifetime of distinguished achievements and outstanding contributions to the advancement of the art, science and industrial practice of Interface and Colloid Science together with active participation in IACIS. This prestigious award is presented triennially at the IACIS Conference. It is an incredible accolade to be nominated and considered for the award. The Selection Committee for LTAA 2025, chaired by Professor Kazue Kurihara (Tohoku U., Japan), have diligently reviewed all the eligible nominations received.

It is with great pleasure that we announce Professor
Dominique Langevin of the Laboratoire de Physique des
Solides, Orsay, France, as the recipient of the IACIS Life
Time Achievement Award 2025. The Selection Committee
applauds her with the following citation, "The IACIS Lifetime
Achievement Award 2025 is presented to Professor
Dominique Langevin for her outstanding scientific

contributions to broad areas of colloid and interface science. She contributed substantially to our knowledge on complex fluids like microemulsions and foams with a particular emphasis on surface rheology. Moreover, for her many contributions and leadership role within the colloid and surface science research community "

Professor Dominique Langevin will receive a certificate together with the citation and will deliver a plenary Award Lecture during the IACIS Conference to be held on 22-26

Congratulations Dominique!

Prof. Kazue Kurihara (Chair, LTAA 2025 Selection Committee) Prof. Gregory Warr (IACIS President) and the IACIS Standing Committee

June 2025 in Edmonton, Canada Colloids 2025

# **IACIS COUNCIL & PRESIDENT-ELECT ELECTIONS 2025**

The ultimate responsibility for IACIS activities rests with the elected 12-membered Council and that for its daily running with its 5-membered Standing Committee. The composition of the current Council (2022-2025) can be found at the IACIS website. Six of the ordinary council members and a new President-elect are elected every three years, with two exceptions: a 1-year COVID extension to the council of 2018-2022 and election of 7 Council members in 2022 (due to one member elected to the President-elect) to maintain a 12-membered council. In 2025, As stipulated in the IACIS constitution, the IACIS Council would like to call for the nominations for the above elections so that a new Council will be established at the IACIS2025, jointly with ACS Colloids & Surface Science Symposium, on 22-26 June 2025 in Edmonton, Canada. At the IACIS2025 General Assembly, Professor Greg Warr (University of Sydney) will pass his IACIS presidency to Professor Alidad Amirfazli (York University, Canada; current President-elect) and will remain to serve on the Standing Committee as the Immediate Past President. It also means that the 2025-2028 council will consist of 13 members.

- Elections for six Ordinary Council members (Tenure: 6 years): The following five ordinary Council members will retire at the IACIS2025: Prof. Shigeru Deguchi (Japan), Prof. Nikolai Denkov (Bulgaria), Prof. Eric Furst (USA), Prof. Remco Tuinier (The Netherlands), and Prof. Tatiana Gambaryan-Roisman (Germany).
- *Election for President-elect (Tenure: 3 years):* The new President-elect will join the Council and the Standing Committee at the IACIS2025.
- Co-opted council members (Tenure: 3 years): The Standing Committee may coopt up to eight additional members if this benefits the IACIS through balanced regional representation and contact with Regional Organisations. Four co-opted members currently serve alongside the IACIS Council (see here).
- Election logistics: The nomination deadline is on 28<sup>th</sup> Feb 2025 and that for elections on 31<sup>st</sup> Mar 2025. A separate email to call for the nominations will be

sent out to the IACIS members, in which the eligibility for the Council and the President-elect will be specified.

Wuge H. Briscoe (IACIS Hon. Secretary & Treasurer, University of Bristol, UK)

# CALL FOR PROPOSALS VENUE AND ORGANIZATION FOR THE 19TH IACIS CONFERENCE IN 2028

Proposals should be sent to <u>Wuge H. Briscoe</u>, with a deadline on 1<sup>st</sup> April 2025.

To promote international co-operation among colloid and interface scientists, and to promote the stature and understanding of colloid and interface science, IACIS sponsors and supports the triennial IACIS Conference. A brief history of the conferences is here <a href="https://www.utwente.nl/en/iacis/iacis-conferences/#previous-conferences">https://www.utwente.nl/en/iacis/iacis-conferences/#previous-conferences</a>.

The immediate past 17<sup>th</sup> edition was held in Brisbane, Australia, in June 2022 (postponed from 2021 due to Covid-19). I am reminded to thank the Aussie organising committee for their heroic efforts in navigating through the minor inconvenience of the little rude virus, delivering a highly memorable event.

The 18<sup>th</sup> IACIS Conference will be in June 2025 in Edmonton, Alberta, Canada, jointly with the 98<sup>th</sup> American Chemical Society (ACS) Colloid and Surface Science Symposium. I hear from the organisers that an exciting update will be provided very soon.

We would now like to invite proposals from all IACIS members for the organization and venue for the 19<sup>th</sup> IACIS Conference in 2028. We will also publicise this invitation widely, reaching out to wider international colloids communities in different regions and countries. A guideline for the bid information and the procedure for selection are below, and questions can be directed to any of the Standing Committee members <a href="https://www.utwente.nl/en/iacis/about/">https://www.utwente.nl/en/iacis/about/</a>.

#### Information in the proposal should include:

- Proposer(s): Titles, names, affiliations, and current positions
- Place and time: City, country, and dates in 2028
- A brief description of the development and present state of colloid and interface science in this country, and research groups involved in the organization (1 A4 max)
- Brief CV of the chair(s) of the Conference
- Members of the Organizing Committee (preliminary)
- Members of the Scientific Committee and International Advisory Board (preliminary)
- Main conference topics (preliminary)
- Venue: A brief description of facilities (for plenary lectures and parallel sessions)

- · Accommodation: Hotels, dormitories/hostels, and estimated prices
- Estimated registration fees
- Potential financial support and possible sponsors

The proposals received will be sent to all IACIS Council members for discussions and consultation, with the provision for a voting process in the event of multiple bids. The Standing Committee will take the final decision before 1<sup>st</sup> June 2025.

From IACIS Honorary Secretary & Treasurer

# SHOWCASE YOUR PUBLICATION

During the pandemic there was a lack of opportunities for young scientists to present their work at international conferences. Therefore we started to invite PhD students to showcase recent publications in the IACIS Newsletter. We have decided to continue this Newsletter item, because it gives an opportunity for young scientists to explain their recent discoveries. The idea is to write a short text in which you explain about your PhD topic, your recent publication and why it is interesting for our community. Detailed guidelines can be found <a href="https://example.com/here/bc/here/b

The aim is to include 2 or 3 showcase texts in each Newsletter, preferably from three different continents. The next Newsletter will appear in July, the deadline for submitting your showcase text is December 16.

Your Newsletter Editor, Saskia Lindhoud

# Metaparticles: Computationally engineered nanomaterials with tunable and responsive properties

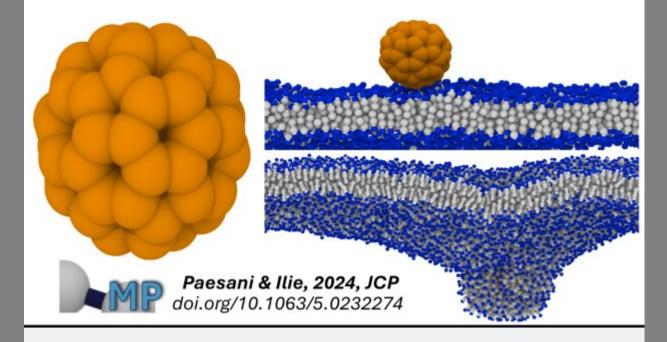
My name is Massimiliano Paesani, I am a PhD student in Ioana Ilie's team in the Computational Chemistry group at the University of Amsterdam. My PhD is focused on the development of novel coarse-grained models for nanocarriers, aiming to pioneer the next generation of drug delivery platforms. The importance of my research extends beyond the biomedical application as the underlying principles can find a wide-range of applications across multiple fields including material science. In the first publication of my PhD we introduce a coarse-grained model designed to capture the intrinsic flexibility of nanoparticles, termed "MetaParticles" (MPs).

We modeled a series of MPs with varying sizes and symmetries, which we subject to external stress, followed by relaxation upon stress release. Our results show that MP's diffusivity is driven by size while its mechanical properties depend on the intrinsic topology and arrangements, showing an elastomer-like response to applied stress. The MPs **respond** to external stress, they are easily **tunable** and **adaptable**.

This work represents the first step toward the development and designing of particles with *smart*properties. Such particles hold significant potential for applications in

biomedicine and the development of bioinspired metamaterials. I am extremely proud of this work as it establishes a framework for future modeling of flexible nanomaterials. The novelty and impact of our work were recognized by *The Journal* of Chemical Physics, which featured our MP model on the cover of the issue and was selected as Editor's Choice!

Massimiliano Paesani, Ioana M. Ilie; Metaparticles: Computationally engineered nanomaterials with tunable and responsive properties. J. Chem. Phys. 28 December 2024; 161 (24): 244905. https://doi.org/10.1063/5.0232274



# **CONFERENCE ANNOUNCEMENTS AND UPDATES**

Below an overview of interesting conferences for the IACIS community. Include your conference?

CONTACT THE NEWLETTER EDITOR

# II Brazilian Workshop on Soft Matter













April 7-11, 2025

ICTP-SAIFR, São Paulo, Brazil

Venue: IFT-UNESP auditorium

Soft matter encompasses a wide variety of disparate systems, ranging from polymers and colloids to surfactants, liquid crystals and active biological matter (e.g. bacteria and flocks of birds). The second edition of the Brazilian Workshop on Soft Matter will bring together experienced students and researchers, and provide a platform for fostering collaboration among members of the soft matter community in Brazil, as well as a forum for discussion of key recent developments in the field. In addition to several research seminars that will be given by outstanding invited speakers, selected participants will have the opportunity to present short talks, and take part in a series of activities at the new Brazilian synchrotron light source (Sirius).

More information can be found here

# School on Biological Physics and Biomolecular Simulations in the Machine Learning Era













April 14-19, 2025

ICTP-SAIFR, São Paulo, Brazil ICTP-SAIFR/IFT-UNESP

The re-emergence of Machine Learning (ML) in the last decade has started to revolutionize the way we think about science, technology, and even our everyday lives. ML has rapidly become a significant part of research across all scientific areas, including the physical sciences. This school attempts to capture the recent excitement about ML in general and for biophysical and biomolecular systems in particular, addressing participants with various backgrounds ranging from biology or biotechnology to physics.

The school's purpose is threefold: a) to provide a theoretical foundation from the physicists' perspective, b) to cross-pollinate different theoretical, experimental, and computational approaches, and c) to develop an overarching perspective that would tie together the various phenomena from biomolecular simulation and electrostatic interactions on the molecular scale to collective behavior of macroscopic biological entities in a unified approach within an ML framework.

There is no registration fee and limited funds are available for travel and local expenses.

This school will be preceded by the <u>II Brazilian Workshop on Soft Matter</u> from April 7–11.

#### Lecturers:

- Cecilia Clementi (Freie Universität Berlin, Germany): Design of protein models with machine learning
- Fernanda Selingardi Matias (Universidade Federal de Alagoas, Brazil): Biological neural networks
- Rosangela Itri (IFUSP, Brazil): Experimental techniques in structural biophysics

More information can be found here.



Formula XII Conference
16-18 June 2025, Sofia, Bulgaria
New strategies for innovation and performance prediction

# Topics:

• Formulants: sourcing, lifecycle, safety and performance

- Formulation design: sustainability and disruptive innovation
- Fundamental science: mechanisms, structure-function relationship and theoretical modelling
- Formulation performance and measurement techniques
- Formulation stability and its prediction
- Formulation and delivery of hydrophobic drugs, biologics and other bio-actives
- · Controlled release formulations
- Automation in formulation: high throughput screening and analysis
- AI/ML in formulation design, performance and process optimization

# Important dates

Abstract submission opening: 1 Nov 2024 Abstract submission deadline: 1 Feb 2025

Early registration: 1 May 2025

https://formula12.org



# Save the date: Bubble and Drop 2025

9-13 June, Prague.

More information will follow.







# Asian Conference on Colloid and Interface Science 2025

Hosted by Asian Society for Colloid and Surface Science (ASCASS)



Aug. 20-22, 2025



Yonsei University, Seoul, KOREA



www.accis2025.org (under construction)



#### **ECIS 2025 – UK COLLOIDS 2025**

With the support of the ECIS Board and the RSC/SCI Joint Colloids Group (UK), the ECIS 2025 conference will be jointly held with the UK Colloids 2025 in Bristol on 7-12 September 2025. Both <u>Registration</u> and <u>Abstract Submission</u> are now open.

The <u>conference venue</u> is the **Delta Hotel** right next to the Castle Park in the vibrant historic Bristol city centre. Details for *Plenary Speakers, Scientific Committees, Registration Fees, Accommodation, Travel, Excursions & Social Programme* can be found at <a href="https://ecis-ukcolloids2025.org/">https://ecis-ukcolloids2025.org/</a>.

We particularly welcome **research students and younger colleagues** to attend the conference, who can apply for a number of RSC travel bursaries and are eligible for several prizes for the best oral and poster presentations.

With colloid and interface science underpinning sustainable industrial formulations and processes, we highly appreciate engagement and support from <u>industrial</u> <u>partners</u>, which will be critically important to the success of the conference. Please <u>get in touch</u> with us if you would like to consider becoming a partner for this flagship conference of the European colloid community.

The **conference scientific themes** are broad-ranging, from fundamental studies to innovation-oriented research, providing a stimulating platform for the delegates to present and discuss latest multidisciplinary research and applications in the field of colloid and interface science. For an overview of the scope of the conference, a list of scientific themes is below:

- · Interfaces, wetting, adhesion & superhydrophobicity
- Bioinspired colloidal systems, bio-interfaces, colloids in health applications & bio-delivery
- Nanoparticles, nanostructured materials, nano-ions, & ion specific effects
- Theory & multi-scale modelling of colloids & interfaces
- Active colloids & catalysis, droplets, emulsions and microemulsions, bubbles & foams
- Surfactants, lipids, membranes & self-assembly
- Colloidal interactions, surface forces, rheology, dynamics & lubrication
- Polymer colloids, hydrocolloids, polyelectrolytes, microgels and hydrogels
- Colloid science for sustainability, application & formulated products

The following **special sessions** for this event will be organised:

- Brian Vincent Terry Cosgrove Symposium (by Brian Vincent and Terry Cosgrove)
- Scattering in Colloid Science (by Sarah Rogers, ISIS Neutron and Muon Source)
- Aerosols (by Bryan Bzdek, UK EPSRC-CDT in Aerosol Science)

We very much hope that you will be able to join us and we shall thank you in the traditional colloidal way when we welcome you here in Bristol in September 2025. *Any questions please email us at ecis2025@inanyevent-uk.com.* 



#### Important dates

11th Apr: Abstract submission deadline 19th May: Presentations selected by Scientific Committees informed 13th Jun: Early Bird Registration concludes 11th Jul: Last day for Oral Presentation registration 7th Sep: Conference opens

#### Organising Committee

Professor Wuge H. Briscoe (Chair)
A. Prof. Richard Greenwood (Co-Chair)
Ms Victoria Hancock (Conference Secretariat)
A. Prof. Shirin Alexander (Treasurer)
Dr Sarah Rogers
Professor Peter Dowding
Prof. emeritus Brian Vincent
Prof. emeritus Terence Cosgrove



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