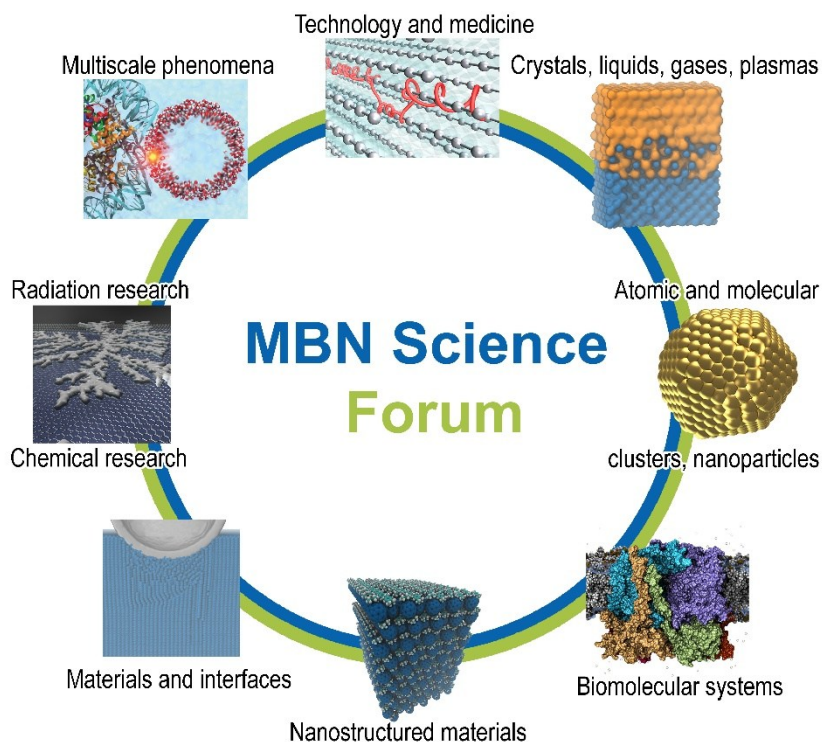


# Meso-Bio-Nano Science Forum 2026



Carl von Ossietzky University of Oldenburg  
Oldenburg, Germany

31 August – 4 September 2026

**First Announcement**

## Scope

The inaugural **Meso-Bio-Nano Science Forum** will take place from **31 August to 4 September 2026** in Oldenburg, Germany. The event is organized jointly by the [Carl von Ossietzky University of Oldenburg](#) (Oldenburg, Germany) and the [MBN Research Center](#) (Frankfurt am Main, Germany).

**Meso-Bio-Nano (MBN) Science** is an interdisciplinary research area that studies the structure formation and dynamics of animate and inanimate matter at the nano- and mesoscales up to the macroscales. Important efforts to deepen the molecular-level understanding of different forms of condensed matter and their dynamical behaviour concern the origin, nature, and evolution of different complex molecular systems, as well as the emergence of new features, properties, processes, and functions associated with the systems as they increase in size and complexity. Research in this area brings together many traditional topics and methods in theoretical physics and chemistry with problems in life sciences and materials research under a common theme. The range of open and challenging scientific problems in this area is very broad. The list of challenging topics in this area is growing rapidly, facilitating the development of relevant theoretical and computational methods.

MBN Science has many links to atomic and molecular physics. In particular, it involves theoretical and computational methods, such as many-body theory, density functional theory, and collision theory, as well as many algorithms that were originally developed for simulating atomic and molecular properties and were later generalised to larger-scale simulations. Similarly, experimental methods, which have shifted more and more from gas-phase experiments involving single atoms and simple molecules to experiments on more sophisticated molecular and condensed matter systems, while maintaining atomic or, at least, nanoscopic resolution.

The theoretical and computational developments in MBN Science [are of great importance to the entire research community](#), leading to new ideas and predictions, revealing new phenomena, and opening up new research horizons. This can be seen from the development of the field over the past decades, where most of the [projects and initiatives](#) described above have been generated and coordinated by the team of the MBN Research Center, although most of the partner teams in these European projects were experimental.

The MBN Research Center conducts an extensive programme of cutting-edge research. This is largely based on the use of the Centers's own state-of-the-art, universal, and powerful software packages, [MBN Explorer and MBN Studio](#), which are designed for advanced scientific research and computational modelling of the molecular structure and dynamics of complex MBN systems.

The MBN Research Center team has long been the main driving force behind the organisation of the conference series [“International Symposia on Atomic Cluster Collisions \(ISACC\)”](#) and [“Dynamics of Systems on the Nanoscale \(DySoN\)”](#).

The ISACC conference series was launched in 2003, and [twelve ISACC conferences have been held](#) to date. Initially, ISACC focused mainly on the dynamics of atomic clusters, particularly in atomic cluster collisions. Since then, however, its scope has significantly broadened to encompass the dynamics of nanosystems, biomolecules and macromolecules, with a particular focus on the similarities between clustering phenomena in various fields of physics, chemistry, and biology.

During the ISACC conferences, it became clear that there was a need for an interdisciplinary conference covering a wide range of topics related to the dynamics of nanoscale systems. As a result, the DySoN conference series was launched in 2010, and [eight DySoN conferences have been held](#) so far.

However, it has become increasingly apparent that the MBN Science area is expanding beyond the scope of the well-established DySoN and ISACC conference series. Therefore, it has been decided that, from 2026 onwards, the MBN Science Forum will encompass the entire relevant research area, including the following topics:

- Structure and dynamics of atomic and molecular clusters, and nanoparticles
- Structure and dynamics of biomolecular systems
- Clustering, self-organization, phase and morphological transitions on the nanoscale
- Nanostructured materials, surfaces and interfaces
- Reactivity and nanocatalysis
- Photon, electron and ion-induced collisions with molecular and cluster systems;

- Fusion, fission, and fragmentation processes
- Radiation-induced chemistry
- Irradiation-driven transformations, damage and fabrication of MBN systems
- Propagation of particles through media
- Clusters and biomolecules in external fields: electric, magnetic, laser, etc.
- Cluster and biomolecular research with free-electron lasers
- Biomedical and technological applications of radiation
- Related technologies: novel light sources, controlled nanofabrication, functionalized materials, etc.

Due to the large and growing number of topics, each new MBN Science Forum event will focus on a specific selection of topical highlights, such as ISACC, DySoN, radiation damage, and applications of MBN Science in technology and medicine. This list of topics is not exhaustive, and other relevant research areas may be added in the future.

## MBN Science Forum 2026

The MBN Science Forum 2026 will focus on the topics related to ongoing European research projects – [MSCA Doctoral Network “MultiScale phenomena in Radiation Damage” \(MS-RADAM\)](#), the Staff Exchanges project “Post-irradiation multiscale dynamics of materials” (PRISMA), and the [COST Innovators Grant “INnovative DIgital COntrol for 3D Nanoprinting” \(INDICO\)](#). These topics are closely bundled with theoretical, experimental, computational, and technological research in the aforementioned areas and have traditionally been discussed at the DySoN conferences.

### Topics of the MBN Science Forum 2026:

#### DySoN-related topics:

- Structure and dynamics of Meso-Bio-Nano systems
- Nanostructured materials, surfaces and interfaces
- Reactivity and nanocatalysis

#### MS-RADAM-related topics:

- Radiation-induced phenomena with biomolecular and biological systems
- Mechanisms of nanoparticle radiosensitization
- Biomedical and technological applications of radiation

#### PRISMA-related topics:

- Irradiation-driven dynamics of condensed matter systems induced by photon, electron and ion beams
- Radiation-induced phenomena in materials induced by relativistic electrons

#### INDICO-related topics:

- Electron and ion irradiation-driven chemistry behind nanofabrication processes
- Controlled nanofabrication and 3D-nanoprinting with focused charged particle beams

## Important Dates

Distribution of the first announcement	April 08, 2026
Distribution of the second announcement	June 01, 2026
Distribution of the final announcement	July 15, 2026
Deadline for early-bird registration	June 01, 2026
Deadline for abstract submission	July 01, 2026

## Preliminary Conference Program

The scientific program of the MBN Science Forum 2026 will consist of interdisciplinary sessions, including invited lectures, review talks and progress reports. A number of hot topic reports will be selected from the submitted abstracts. Other contributions will be presented in a poster session. Suggestions for possible candidates for invited speakers should be sent to the Chairman of the conference. The list of invited and confirmed speakers will be distributed with the second announcement.

### Monday, 31 August (DySoN-related sessions)

08 <sup>00</sup> – 09 <sup>15</sup>	Participants registration
09 <sup>15</sup> – 09 <sup>30</sup>	MBN Science Forum 2026 Opening
09 <sup>30</sup> – 18 <sup>00</sup>	Scientific sessions (presentations)
19 <sup>00</sup> – 21 <sup>00</sup>	Welcome reception

### Tuesday, 1 September (DySoN-, PRISMA- & INDICO-related sessions)

09 <sup>30</sup> – 16 <sup>00</sup>	Scientific sessions (presentations)
16 <sup>30</sup> – 18 <sup>00</sup>	Poster session

### Wednesday, 2 September (INDICO and PRISMA-related sessions)

09 <sup>30</sup> – 18 <sup>00</sup>	Scientific sessions (presentations)
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### Thursday, 3 September (INDICO & MS-RADAM-related sessions)

09 <sup>30</sup> – 18 <sup>00</sup>	Scientific sessions (presentations)
19 <sup>00</sup> – 22 <sup>00</sup>	Conference dinner

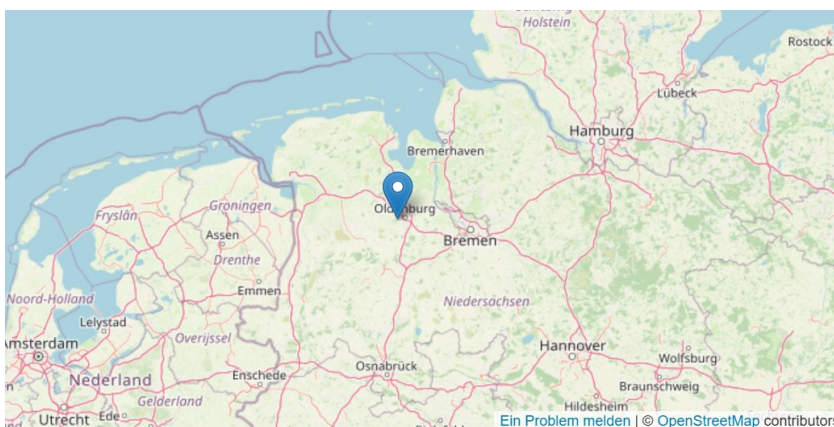
### Friday, 4 September (MS-RADAM related sessions)

09 <sup>30</sup> – 13 <sup>00</sup>	Scientific sessions (presentations)
13 <sup>00</sup> – 13 <sup>15</sup>	MBN Science Forum 2026 Closing

## Conference Venue and Travel Information

The MBN Science Forum 2026 will be held at the [Carl von Ossietzky University of Oldenburg](#) (Oldenburg, Germany).

Oldenburg is a vibrant university city in Lower Saxony – the northwestern part of Germany, located about 45 km west of Bremen, roughly 170 km northwest of Hamburg, and around 50 km from the North Sea coast. The city is easily accessible via major transport routes: the nearest international airport is Bremen Airport (approximately 50 km), while larger hubs such as Hamburg Airport offer extensive global connections. Oldenburg is well connected by rail, with frequent regional and intercity services linking it to Bremen, Hamburg, and other major German cities, making travel convenient for conference participants.



Historically, Oldenburg served as the residence of the Counts, later Grand Dukes, of Oldenburg and retains [a rich cultural heritage](#) reflected in its neoclassical architecture, museums, and landmarks such as the [Oldenburg Palace](#) and the [Lappan tower](#).

Detailed travel information and further information on how to reach the conference venue will be distributed with the follow-up announcements.

## Registration

The **early-bird** registration fee for the MBN Science Forum 2026 conference is **400€** for students and **500€** for regular participants.

After the early-bird registration deadline of **01 June 2026** the conference fee will increase to **500€** for students and **600€** for regular participants.

The registration fee includes coffee breaks, lunches, the conference reception, and the conference dinner.

There will be a separate fee for accompanying persons, which will cover the conference reception and dinner. Please contact the conference organisers ([mbnrc.manager@gmail.com](mailto:mbnrc.manager@gmail.com)) for further information regarding accompanying persons.

The payment to the order of “MBN Science Forum 2026” can be made **by bank transfer** to

Bank Account Name:	MBN Research Center gGmbH
Bank Name:	Deutsche Bank
Branch Address:	Hauptstr. 561462 Koenigstein Germany
IBAN:	DE15500700240137588000
BIC:	DEUTDEDBFRA

Please quote your **NAME** and **MBN Science Forum 2026** on the transfer. Please ensure there are no charges to the organisers. If you need an invoice for the payment or want to pay with a credit card, please send a short email to [mbnrc.manager@gmail.com](mailto:mbnrc.manager@gmail.com).

## Financial support via COST

The COST Innovators Grant INDICO provides financial support to reimburse some of the conference participants for their expenses related to their participation in the conference. Detailed information about the COST reimbursement rules can be found in the [Annotated Rules for COST Actions](#) (see Section A1-3.1 “Travel reimbursement rules”, pp. 82-90).

The number of participants to be reimbursed is limited by the CIG INDICO budget allocated for this meeting. In order to be reimbursed, you must receive an official invitation through e-COST indicating that you are eligible for the reimbursement. Invitations will be sent to conference participants who have completed the registration and paid the registration fee.

When arranging your travel and accommodation, please consider the following rules (see the Annotated Rules for COST Actions for complete and detailed information):

- Any transport you take in your country (airplane, train, bus, car...) is reimbursed based on the supporting documents provided (tickets for flights, trains and buses; proof of distance for car travel, e.g. by Google maps). Taxi, car rental, fuel and parking expenses are not eligible.
- Your stay in Germany should be covered under the [flat-rate Daily Allowance \(DA\)](#). The DA is intended to cover accommodation, meals and transport in the host country. No receipts will be required.
- The maximum DA rate that can be claimed is calculated according to the actual number of days you attend the meeting (max. 3 days can be reimbursed), as confirmed by your signature on the official attendance list, plus travel days (100% of the DA for the travel day to the event and 40% of the DA for the day of departure from the event).

## Official Invitation and Visa

Conference participants are advised to check the passport and visa requirements for travel to Germany well in advance.

## Organizing Committee

- Andrey Solov'yov (MBN Research Center) – **Co-Chair**
- Ilia Solov'yov (Carl von Ossietzky University of Oldenburg) – **Co-Chair**
- Elzbieta Chojnowski (Carl von Ossietzky University of Oldenburg)
- Khilola Kamolova (MBN Research Center)
- Jorim Kornblueh (Carl von Ossietzky University of Oldenburg)
- Irina Solovyeva (MBN Research Center, Germany)
- Alexey Verkhovtsev (MBN Research Center, Germany)



## Contact Information

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