Home

“Almost all aspects of life are engineered at the molecular level, and without understanding molecules we can only have a sketchy understanding of life itself” Francis Crick (1988)

This School aims to provide a research-led overview of the current state-of-the-art in self-assembly phenomena, applied supramolecular chemistry, and bio-nanomaterials. Taking inspiration from Nature, the attendees will be guided through all aspects of chemistry underpinning the formation of hierarchical structures and complex functionalities.

During an intense training week the attendees will learn how to design and develop functional materials through the combination and assembly of organic, inorganic, coordination, biological molecules, and higher-level building units.

The field of supramolecular systems and bio-nanomaterials is both timely and highly interdisciplinary and this School wishes to foster a collaborative, multidisciplinary, and dynamic “playground” for presenting and discussing the most recent research results in field of supramolecular chemistry and self-assembled materials.

Welcome to the 1st School of Supramolecular and Bio-Nanomaterials

Book of Abstract (SBN School_Book of Abstract compressed)
Organizing Committee

Pierangelo Metrangolo (Politecnico di Milano)

Claudia Pighizzini (Politecnico di Milano)

Francesca Solidi Bonelli (Politecnico di Milano)

Gianfranca Cavaliere (Politecnico di Milano)

Valentina Dichiarella (Politecnico di Milano)

Giancarlo Tonon (Politecnico di Milano)

Cristina Orlandi (Politecnico di Milano)
1st School of Supramolecular and Bio-Nanomaterials

Lake Como School of Advanced Studies, June 13-17, 2022

Scientific Themes

- Fundamentals of High Performance Computing in chemistry and biology
- Principles of supramolecular chemistry
- Nanomaterials and nanoparticles design
- Porous framework materials and their applications in storage, delivery, and separation
- Self-assembled and supramolecular systems in medicine and nanomedicine
- Smart and biomimetic materials
- Design, synthesis, and characterization of artificial folded molecular architectures
- Peptides and proteins
- Active and responsive molecular systems
- Sensors and transistors
Speakers

Maurizio Abramovitch — University of Technology (Italy)

Francesco Domenico Brandi — Politecnico di Milano (Italy)

Fabio Biscarini — University of Bologna and Università di Firenze (Italy)

Daniel Stoltenberg — Technische Universität Dortmund, Germany

B. W. L. van der Hoef — Universiteit Maastricht (Netherlands)

Rajkumar Nair — University of Strathclyde (UK), The Netherlands

Mengyue — Tsinghua University (China)

Prince S. Banerjee — Rensselaer Polytechnic Institute (USA)

Valentin E. Sedlacek — Ecole polytechnique fédérale de Lausanne (EPFL, Switzerland)

Harald Wissing — ETH Zurich (Switzerland)

Ondrej Zavada — University of Ljubljana (Slovenia)

Fernando Zampighi — Università di Bologna (Italy)
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Main Activities

The School is designed for PhD students, Post-Docs, and young scientists with various fields of interest, who aim at mastering the phenomena associated with molecular recognition and self-assembly, and the design and preparation of functional molecules and materials for a wide-range of high-end applications.

The School Program will be organized in Lectures followed by a dedicated Question Time coordinated by the Chair of the Session.

Poster presentations will be scheduled.

Project group and team building activities will be proposed.

In particular attendees will be asked to challenge themselves with the development of a Research Project Idea in the field of supramolecular and bio-nanomaterials. Students will be divided into groups of 5 attendees + 1 tutor for guiding the group activity. The organizing committee will identify a topic/problem and the group will develop a project/solution based on a school template. On the fourth day of the School (June 16), group representatives will be given 10 min to discuss the respective group project ideas.

A Prize will be awarded to the Best Research Project Idea and the Best Poster.
Application

APPLICATIONS ARE NOW CLOSED!

The school will be open to a maximum of 30 attendees. Selection of participants will be based on a motivation letter and a CV (max 500 words + publications).

Registration fee is 300 € (VAT 22% included) and includes all lectures, course materials, Wi-Fi connection, welcome party, lunches, coffee breaks, and the social dinner.

The School provides significant but limited funds for the support of students and younger participants.

The support for selected applicants will include: free accommodation at the students' dormitory in the Villa del Grumello for the whole duration of the school.

Important Dates

OPENING OF THE ONLINE APPLICATION: March 1, 2022.
ACCEPTANCE NOTICE: May 8, 2022.
Registration

Registrations are closed.
Venue & Accommodation

The School is housed at Villa del Grumello, which is set in a stunning park overlooking the first basin of the Como lake.
It is framed by century-old trees and enchants its visitors with its delicate atmosphere and its harmonious setting.

Driving force of the development of the Larian area, the Villa is a reference point for culture, science, and the business community. Returned to its original prestige, it meets the diverse requirements of its new role as a leading centre for the City of Como. A venue of international significance, the Villa is the ideal location to host conventions, conferences, courses, meetings, fashion shows, and art events.

How to get there

Click here for information on how to reach Como

Villa del Grumello is 20 min on foot from Como city center – you can also take a bus, lines 6 and 11 (bus stop: “Como Via Regina Piscine Villa Olmo”, just after “Villa Olmo”).
From the main Train Station (Como S. Giovanni), the nearest bus stop to catch line 6 and 11 is “Piazzale Rocchetti”.

Click here for a map

Accommodation

Lake Como structures offer participants a variety of accommodation possibilities to meet all needs. HERE you can find a list of selected facilities.

It is possible to book directly at the Hostel Ostello Bello (https://ostellobello.com/it/ostello/ostello-bello-como-lake/, email: booking.como@ostellobello.com ). The hostel is 15 minutes walking from Villa del Grumello and it is possible to get a discount reporting you are attending a School organized by Fondazione Alessandro Volta.
Contacts

Scientific Secretariat

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Organizing Secretariat

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