5th Workshop on Dynamics in Confinement - CONFIT 2022 Grenoble, France October 11-13, 2022

Welcome to CONFIT 2022

The 5th Workshop on Dynamics in Confinement – CONFIT 2022, is hosted by the <u>Institut Laue-Langevin</u> in Grenoble, the capital city of the French Alps. The scientific program takes place from the 11th to 13th of October 2022. Participants are welcome to join a get-together buffet on the 10th and extend their stay until the 14th of October. Note that the number of participants is limited to 100.

The workshop covers sessions on:

- Liquids and Glasses in Confinement
- Absorbates, Atoms and Molecules in Confinement
- Water in Confinement
- Confinement in Thin Films, Interfaces and Wetting
- Biological, Colloidal and Polymeric Confined Systems

It includes invited lectures, contributed presentations and posters. Continue here to abstract submission.

Workshop Charges and Guest-House Accommodation

The workshop charges amount to 200 € for regular participants and 150 € for students. The charges comprise costs of meals, beverages and the conference dinner.

There is a limited number of rooms pre-reserved in the Guest House of the institute at a reduced price. This accommodation should be particularly appealing to students. Please see the web pages of <u>CONFIT 2022</u> for details.

Important Dates

Abstract submission: 19 June, 2022Abstract acceptance: 17 July, 2022

Registration:
Final program:
Workshop:
1 September, 2022
25 September, 2022
11-13 October 2022

Scientific Advisory Board

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- Margarita Kruteva (JCNS, Germany)
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Scope of CONFIT 2022

This workshop should appeal to scientists working in experimental, theoretical and computational areas on the effects of confinement on the dynamics of atoms, molecules and condensed matter.

Confining media should be understood in a wider sense

- micro- and nano-porous matrices,
- tubes, channels, layers, films,
- micelles, blockcopolymers, nanocomposites,
- clathrates, zeolites, metal-organic frameworks, crystallites,
- other materials where confinement may play an essential role.

Confined media considered here are

- atoms and molecules
- liquids and glasses,
- water and other simple organic and inorganic liquids,
- polymers,
- complex liquids, biological systems

The dynamical properties of matter confined in space deviate appreciably from those of the bulk state. Over the past two decades a growing number of experimental, computational and theoretical studies aimed at investigating these confinement phenomena and at disentangling those from effects which are induced by the confining media, such as surface interactions. The origin of studies of dynamics in confinement lies in the field of supercooled liquids and glasses where spatial confinement allows some control of the 'cooperativity length'. By now the scope of the 'confinement concept' has widened to polymer dynamics in composites and blends, molecular dynamics in the 'crowded environment' of living cells, molecular dynamics in membranes and surfaces, etc. Besides the understanding of the fundamental aspects of confined matter, there is now strong interest in its properties for industrial applications. Batteries and fuel cells are only two examples where the dynamics of confined matter and confining materials are harvested for functioning.

This '5th International Workshop on Dynamics in Confinement' aims at summarizing the status of the research by spectroscopic methods, theoretical concepts and computer simulations. Like the previous four workshops it will promote collaboration among scientists working in this field. We encourage scientists working in the preparation and characterisation of such confinements as well as researchers involved in industrial applications, for which the understanding of the microscopic dynamics is of importance, to participate in this workshop.