

Advanced School on Foundations and Applications of Nanomechanics



18 - 22 September 2017
Trieste, Italy

Further information:

Activity URL: <http://indico.ictp.it/event/7991/>

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This school introduces the science of nanomechanical systems, a flourishing field of research. Nanomechanical systems are of interest both for their potential in terms of fundamental quantum physics as well as for applications in sensitive measurements, quantum information and other areas.

Description:

This Advanced School will recapitulate the foundations of nanomechanical systems and introduce the key concepts behind nano- and optomechanical technologies. The breadth of the field will be covered in six series of lectures delivered by internationally renowned experts. The pedagogical part of the school will be complemented by a series of about 20 invited presentations of state-of-the-art research. A crucial part of the school, in addition to the lectures and talks, will be the active contribution of the participants, which will be encouraged and fostered by several means: During the first week of the school, designated timeslots for tutorial classes will enable students to practice their skills in analytical as well as numerical methods, and will include problem solving and presentation of scientific results. The participants will work in small teams on research-type mini-projects.

For the 2nd week workshop
Foundations and Applications of Nanomechanics
25 - 29 September 2017, go to link:
<http://indico.ictp.it/event/8169/>

Topics:

- Basics of nanomechanical systems;
- Cavity optomechanics;
- Nanomechanics coupled to microwave circuits;
- Electronic transport properties of nanomechanical systems;
- Hybrid quantum systems involving nanomechanics;
- Quantum aspects of nanomechanics.

How to apply:

Online application:
<http://indico.ictp.it/event/7991/>

Female scientists are encouraged to apply.

Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

Directors:

Andrew Cleland (University of Chicago)

Ivan Favero (Université Paris Diderot)

Mikhail Kiselev (ICTP)

Florian Marquardt (University of Erlangen-Nürnberg)

Fabio Pistolesi (Université de Bordeaux)

Eva Weig (University of Konstanz)

Local Organizer:

Mikhail Kiselev (ICTP)

Lecturers:

Yaroslav M. Blanter, TU Delft

Mark Dykman, Michigan State University

Jack Harris, Yale University

Klemens Hammerer, Leibniz University Hannover

Oriol Romero-Isart, IQOQI Innsbruck

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