

# Conference on New Trends in Quantum Heat and Thermoelectrics

**22 - 26 August 2016**  
**ICTP, Miramare - Trieste, Italy**

The Abdus Salam International Centre for Theoretical Physics (ICTP) is organizing a "Conference on New Trends in Quantum Heat and Thermoelectrics". The activity will be held **from 22 to 26 August 2016**, in Trieste, Italy.

## Purpose and topics of the Conference

The goal of this Conference is to discuss "state of the art" in theory and experiment for quantum heat transport and thermoelectrics.

This Conference will focus on different aspects of heat transport and thermoelectric phenomena in the mesoscopic scale. The aim is to make the connection between the recent theoretical concepts and experimental advances in these fields, in different kinds of systems, including edge states of topological systems, quantum dots, superconducting junctions, magnetic systems, as well as hybrid systems of electrons and photons/phonons.

The topics include:

- Efficient quantum thermoelectrics, miniaturization, inelastic and nonlinear effects
- Heat transport in topological insulator materials and topological magnetic systems
- Quantum machines and energy harvesting in quantum devices
- Heat and information processing
- Thermometry in edge states of the quantum Hall effect
- Thermoelectrics of superconducting junctions
- Hybrid systems of electrons and photons/phonons
- Quantum systems under time-dependent driving
- Heat transport in systems with many-body interactions: quantum wires and quantum dots

## Participation

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend the Conference. As it will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Centre is to help researchers workers from developing Countries through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half- fare). However, limited funds are available for some participants, who are nationals of, and working in, a developing country. Such support is available only for those who attend the entire activity. There is no registration fee.

## How to apply for participation

Applicants should apply online, at the activity website:

<http://indico.ictp.it/event/7606/>

Deadline for receiving applications: **15 May 2016**.

## Activity Secretariat:

The Abdus Salam International Centre for Theoretical Physics (ICTP) - (SMR2824)  
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## ORGANIZERS

**Liliana Arrachea**  
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(Univ. of Wuerzburg, Germany)  
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**Mikhail Kiselev**  
(ICTP, Italy)\*  
*\*also Local Organizer*  
**Felix von Oppen**  
(Freie Universitaet Berlin, Germany)

## INVITED SPEAKERS

**C. Altimiras**  
(Saclay, France)  
**G. Benenti**  
(Universita' degli Studi dell'Insubria, Italy)  
**M. Campisi**  
(Scuola Normale Superiore, Pisa, Italy)  
**A.L. Chernyshev**  
(University of California, U.S.A.)  
**H. Courtois**  
(Université Grenoble Alpes and CNRS, France)  
**O. Entin-Wohlmann**  
(Tel Aviv University, Israel)  
**C. Glattli**  
(CNRS Saclay, France)  
**P. Haenggi**  
(Universität Augsburg, Germany)  
**S. Jezouin**  
(ENS-Paris, France)  
**K. Matveev**  
(Argonne National Laboratory, U.S.A.)  
**Y. Meir**  
(Ben Gurion University, Israel)  
**S. Murakami**  
(Tokyo Institute of Technology, Japan)  
**A. Nitzan**  
(University of Pennsylvania, U.S.A.)  
**J. Pekola**  
(Aalto University, Finland)  
**A. Ramsak**  
(University of Ljubljana, Slovenia)  
**D. Sanchez**  
(Universitat de les Illes Balears, Spain)  
**R. Sanchez**  
(University Carlos III de Madrid, Spain)  
**M. Sassetti**  
(University of Genova, Italy)  
**J. Splettstoesser**  
(Chalmers University of Technology, Sweden)  
**H. Thierschmann**  
(Universität Wuerzburg, Germany)  
**R. Whitney**  
(Université Grenoble Alpes & CNRS, France)  
**Y. Xu**  
(Yong Xu, Tsinghua University, China)

**DEADLINE: 15 MAY 2016**

