

College on Energy Transport and Energy Conversion in the Quantum Regime



12 - 30 August 2019
Trieste, Italy

Further information:
<http://indico.ictp.it/event/8714/>
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The development of quantum technologies is closely connected to the possibility of controlling and manipulating the transport of charge, spin and energy. The aim of this activity is to integrate the communities of Statistical Mechanics, Quantum Information, Cold Atoms and Condensed Matter Physics to understand fundamental aspects of this problem.

Lecture courses:

- “Quantum thermoelectricity: theory”, Giuliano Benenti, Italy
- “Quantum dissipation”, Rosario Fazio, Italy
- “Maxwell Daemon”, Rosa López, Spain
- “Quantum thermoelectricity: experiment”, Laurens Molenkamp, Germany
- “Quantum fluctuation-dissipation relations”, Juan Parrondo, Spain
- “Quantum thermodynamics in electronic circuits”, Jukka Pekola, Finland
- “Quantum Floquet engineering”, Anatoli Polkovnikov, USA
- “Quantum thermodynamics and information theory”, Ferdinand Schmidt-Kaler, Germany
- “Charge and energy transport in driven electron systems”, Janine Splettstoesser, Sweden

Workshop Topics:

- Frontiers of thermoelectricity
- Transport and thermodynamics in driven systems
- Thermal transport and energy conversion in topological systems
- Quantum thermal machines
- Many-body effects in energy transport and energy conversion

Directors:

L. ARRACHEA, University of San Martin
G. CASATI, Università degli Studi dell’Insubria
C. JARZYNSKI, University of Maryland
R. KOSLOFF, Hebrew University of Jerusalem

Local Organizer:

M. KISELEV, ICTP

Speakers Workshop:

Joel Moore, USA
Gil Refael, USA
Frederick Pierre, France
Francesco Giazotto, Italy
Christian Schmiegelow, Argentina
Christian Glattli, France
Clemens Winkelmann, France
Heiner Linke, Sweden
Sebastian Diehl, Germany
Robert Whitney, France
Massimiliano Esposito, Luxembourg
Raam Uzdin, Israel
Ewelina Hankiewicz, Germany
David Sanchez, Spain
Yuval Gefen, Israel
Fabio Taddei, Italy
Peter Samuelsson, Sweden
Anton Ramsak, Slovenija
Michele Campisi, Italy
Geraldine Haack, Switzerland
Dario Poletti, Singapore
Marcos Rigol, USA

How to apply:

Online application:
<http://indico.ictp.it/event/8714/>

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.

Deadline:

1 May 2019



The Abdus Salam
International Centre
for Theoretical Physics
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Trieste, Italy

