

Quantum Dynamics: From Electrons to Qbits



22 August - 9 September 2022
An ICTP Meeting
Trieste, Italy

Further information:
<http://indico.ictp.it/event/9823/>
smr3733@ictp.it

This School aims to teach a modern course in condensed matter and statistical physics, combining basic concepts with recent structural and interdisciplinary developments, with a special focus on quantum dynamics and out of equilibrium phenomena.

The leitmotif of the school will be to bridge traditional methods and approaches developed in the context of strongly correlated electrons, to interdisciplinary concepts and ideas coming from quantum information theory as well as solid state and atomic physics experiments, where individual components are often thought of as qbits.

The event is aimed at graduate students and junior researchers, and features a combination of theory and computational courses, as well as seminars on experimental progress in the field.

Topics:

- Statistical Mechanics: from foundations to active matter and quantum information
- Analytical technique and (quantum) field theory
- Numerical methods: high-level programming and advanced numerical methods
- Coherent dynamics: entanglement, decoherence, phase transitions, driven systems, and chaos in many body physics
- Topological quantum matter: phases, excitations, and diagnostics
- Physical platforms: cold atoms, trapped ions, nanostructured materials, superconducting circuits

How to apply:

Online application:
<http://indico.ictp.it/event/9823/>

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:

C. CASTELNOVO, University of Cambridge, UK
X. CHEN, Caltech, USA
M. DALMONTE, ICTP, Italy
R. MOESSNER, MPIPKS Dresden, Germany
A. SCARDICCHIO, ICTP, Italy

Local Organiser:

M. DALMONTE, ICTP, Italy

Lecturers:

S. BHATTACHARJEE, ICTS Bengaluru, India
J. CHALKER, Oxford, UK
A. CHANDRAN, Boston University, USA
Đ. THANH SƠN, University of Chicago, USA
A. DE LUCA, CNRS, France
S. HARTNOLL, Cambridge, UK
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Deadline:

30 April 2022



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