

Advanced School and Workshop on Quantum Science and Quantum Technologies



4 - 15 September 2017
Trieste, Italy

Further information:

School: <http://indico.ictp.it/event/7989/>

Workshop: <http://indico.ictp.it/event/8232/>

E-mail School: smr3145@ictp.it

E-mail Workshop: smr3183@ictp.it

The School (4 - 9 September 2017) covers a broad selection of fundamental topics in quantum science and quantum technology, treated at an advanced level. The Workshop (11-15 September 2017) aims at a comprehensive overview on research in quantum science and technology, including recent results, current trends, and future perspectives.

Description:

The purpose of the School is to provide up-to-date, state of the art knowledge on some of the most important aspects of fundamental quantum physics, quantum information, and quantum technologies, covering both theoretical and experimental aspects. The targeted audience includes advanced undergraduate and PhD students, as well as post-doctoral fellows and junior researchers. Special attention will be devoted to the training of scientists from emerging countries in line with the fundamental mission of the ICTP.

The Workshop brings together a mix of established experts and emerging young researchers to give an in-depth overview on some of the most significant recent research results and on current, cutting-edge research trends in quantum information and quantum technologies. The targeted audience matches that of the School.

Topics:

- Fundamental Theory: Entanglement, Coherence, Correlations;
- Quantum Technologies: Quantum Information, Computation, Sensing, Estimation, Metrology;
- Quantum Simulations;
- Quantum Thermodynamics;
- Quantum Information and Condensed Matter Physics;
- Open Quantum Systems;
- Algorithms and Optimization;
- Ultracold Atoms;
- Trapped Ions;
- Circuit QED;
- Photonics and Photonic Networks;
- Spintronics.

How to apply:

Online application:

<http://indico.ictp.it/event/7989/>

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:

F. ILLUMINATI (Università degli Studi di Salerno), CHAIR

M. B. PLENIO (Universität Ulm)

V. KARIMPOUR (Sharif University, Tehran; ICTP, Trieste)

U. SEN (Harish-Chandra Research Institute, Allahabad, India)

Local Organizer:

R. FAZIO (ICTP, Trieste)

Lecturers at the School:

G. CARLEO (ETH, Zürich)

J. EISERT (FU, Berlin)

F. GERBIER (LKB, Paris)

V. GIOVANNETTI (SNS, Pisa)

G. KIRCHMAIR (Universität Innsbruck) *tbc

B. KRAUS (Universität Innsbruck)

D. LOSS (Universität Basel)

M. PATERNOSTRO (Queen's University, Belfast)

M. B. PLENIO (Universität Ulm)

H. PRICE (Università di Trento)

N. SCHUCH (MPG, München)

E. SOLANO (University of the Basque Country, Bilbao)

J. WRACHTRUP (Universität Stuttgart)

C. WUNDERLICH (Universität Siegen)

Speakers (Partial List*):

J. EISERT (FU, Berlin)

M. FLEISCHHAUER (Universität Kaiserslautern)

F. GERBIER (LKB, Paris)

V. GIOVANNETTI (SNS, Pisa)

A. IMAMOGLU (ETH, Zürich) *tbc

D. JAKSCH (University of Oxford)

T. KIPPENBERG (EPFL, Lausanne) *tbc

D. LOSS (Universität Basel)

M. PATERNOSTRO (Queen's University, Belfast)

M. B. PLENIO (Universität Ulm) *tbc

N. SCHUCH (MPG, München)

E. SOLANO (University of the Basque Country, Bilbao)

V. VEDRAL (University of Oxford)

P. WALTHER (Universität Wien)

C. WUNDERLICH (Universität Siegen)

* See complete list at: <http://indico.ictp.it/event/8232/>

Deadline:

for applications needing financial support and/or visa

30 June 2017

for applications NOT needing financial support and/or visa

20 July 2017



The Abdus Salam
**International Centre
for Theoretical Physics**

www.ictp.it
Strada Costiera 11, 34151 Trieste, Italy

