

ICTP Conference on Adiabatic Quantum Computation / Quantum Annealing (hosting AQC2022)



20 - 24 June 2022
An ICTP Hybrid Meeting
Trieste, Italy

Further information:
<http://indico.ictp.it/event/9803/>
smr3718@ictp.it

Adiabatic quantum computing and quantum annealing are promising technologies to be used in near-future quantum devices. The conference, hosting the annual Adiabatic Quantum Computing Conference AQC2022, will deal with academic and basic studies of these topics, with a broad focus.

Description:

The conference will bring together world-leading experts in quantum science and technologies from different areas of condensed matter, photonics and atomic-and-molecular physics to discuss together their latest results and viewpoints. The scientific focus will be on theoretical, numerical, and experimental trends. The meeting will collect, as is well established in Trieste, the world community active in these fields, for fruitful encounters and exchanges, and with an intense mixing of theoretical, simulation and experimental experiences, including emerging countries, in line with the mission of ICTP. In addition to about 12 invited speakers, a number of shorter contributed presentations will also be accepted.

Topics:

- Quantum annealing hardware
- Open quantum systems
- Quantum annealing simulation and benchmarks
- Optimal control for closed and open systems
- Efficient encoding schemes
- Basic theories of quantum annealing and related topics

Directors:

D. LIDAR, USC, USA
H. NISHIMORI, Tokyo Institute of Technology, Japan
F. WILHELM-MAUCH, Jülich, Germany
E. RIEFFEL, NASA, USA
G.E. SANTORO, SISSA, Italy
A. SCARDICCHIO, ICTP, Italy

Local Organiser:

A. SCARDICCHIO, ICTP, Italy

Speakers:

M. AMIN, D-Wave, Canada
L. CAMPOS VENUTI, USC, USA
N. CHANCELLOR, Durham University, UK
H. CHEN, LBNL, USA
S. DISSELER, MIT Lincoln Laboratory
D. FERGUSON, NGC, USA
D. FRANÇA, University of Copenhagen, Denmark
K. MICHIELSEN, Jülich Forschungszentrum, Germany
M. MOHSENI, Google, USA
S. SUZUKI, Saitama Medical University, Japan
P. WARBURTON, UCL, UK
Y. YAMAMOTO, NTT Research, USA

How to apply:

Online application:
<http://indico.ictp.it/event/9803/>

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.

Deadlines:

22 April 2022

Applications needing financial support and/or visa

15 May 2022

All other applications

