

Joint ICTP/IAEA Advanced School on Ion Beam Driven (CTP) Materials Engineering: Accelerators for a New Technology Era

1 - 5 October 2018
Trieste, Italy

Further information:
<http://indico.ictp.it/event/8332/>
smr3236@ictp.it

Ion beam techniques (IBT) have been extensively applied for material analysis and modification by using ions in the keV-GeV energy range. Advanced capabilities for single ion implantation and detection, enhanced by recent advances in ion beam material analysis and modification at the nano-scale can provide a prominent role for IBTs in the recently emerging field of quantum technologies (QT). New generation of devices are expected to be developed within the "Second Quantum Revolution", which is being supported through major strategic research initiatives worldwide e.g. in Australia, China, Europe, India, Japan, USA etc.

This Advanced School will provide the latest technological developments to engineer new material properties with ion beams, with a specific focus on quantum technologies for PhD students and early career researchers (i.e. up to 7 years after PhD degree) actively involved in ion beam techniques and/or in the field of quantum technologies.

Topics:

- Key topics in Quantum Technologies;
- Radiation Effects in Materials: Theory and Modelling;
- Novel keV-GeV Ion Beam Techniques for Quantum Technologies: Single Ion Implantation, High Resolution Ion Beam Lithography, Time-Resolved Analysis, etc.;
- Materials Engineering by Ion Beams for QT applications: single dopants in semiconductors, optically active defects in wide-bandgap semiconductors, etc.;
- "Project Development Lab" to develop skills on how to write and present a coherent scientific proposal in the field of "Ion beams for QT".

Call for Abstracts:

In the application form, all applicants are invited to submit an abstract for a poster presentation within the scope of the School. It is highly desirable to get a letter of support if one is applying for a financial support.

How to apply:

Online application:
<http://indico.ictp.it/event/8332/>

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:

Paolo OLIVERO (University of Turin, Italy)
Aliz SIMON (IAEA, Vienna, Austria)

Local Organizers:

Sandro SCANDOLO (ICTP, Trieste, Italy)

Keynote Lecturers:

Andrew A. BETTIOL, Nat. Univ. of Singapore, Singapore
Edward S. BIELEJEC, Sandia National Laboratories, USA
Leonard C. FELDMAN, Rutgers University, USA
Jacopo FORNERIS, INFN, Italy
Jan MEIJER, Leipzig University, Germany

Deadline:

15 May 2018

