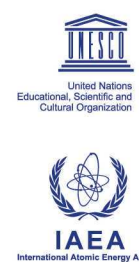




The Abdus Salam
**International Centre
for Theoretical Physics**
www.ictp.it



WORKSHOP ON NANOPHOTONICS

(3 - 7 December 2012)

Miramare, Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP, Trieste, Italy) is organizing a **Workshop on Nanophotonics** to be held at the ICTP, from **3 - 7 December 2012**. This event is co-sponsored by the Argonne National Laboratory and the US NSF (National Science Foundation) and the Institute for Complex Adaptive Matter (ICAM-12CAM).

DESCRIPTION:

This Workshop will describe the fundamentals, recent advances and applications of nano photonics and will be organized to encourage the interaction of the participants from all countries and at all levels. It will provide a unique opportunity to advance knowledge and understanding in the area of interaction of light with sub-wavelength size objects.

There will be Tutorial lectures given by experts in the field followed by Invited Talks in specific topics. In order to foster content-specific interactions, the Workshop will include a Poster Session for the presentation of research studies by junior and other participants. In addition, we will introduce the participants to a variety of user facilities that provide access to nanofabrication and characterization equipment.

Topics to be covered:

Introduction to sub-wavelength photonics
Plasmonics; Metamaterials; Transformation optics;
Forces at the nanoscale;

Sub-wavelength structures nanofabrication techniques
Lithographic and nano-patterning techniques; Chemical fabrication;
Bio-inspired fabrication; Materials properties;

Applications and devices
Optical antennas; Nanowire devices; Spasers and nanolasers;
Plasmonic detectors; Diamond nanophotonics; Graphene photonic devices;
Phase discontinuities based devices; Photovoltaics; Spectroscopy and sensing.

PARTICIPATION:

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend. As the event will be conducted in English, participants should have an adequate working knowledge of this language. Although, the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by their home institution. Every effort should be made by candidates to secure support for their fare. However, very limited funds are available for partial support of some participants who are nationals of, and working in, a developing country, and who are not more than 45 years old. Such support is available only for those who attend the entire Workshop. **There is no registration fee for attending this activity.**

HOW TO APPLY FOR PARTICIPATION

An Online Application Form can be accessed through the Workshop website
<http://agenda.ictp.it/smr.php?2377>

Once in the website, comprehensive instructions will guide you step-by-step on how to fill out and submit the Application Form.

Deadline for Application: 15 AUGUST 2012

WORKSHOP SECRETARY - Ms Doreen M. Sauleek

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Trieste, November 1 2012



ORGANIZERS:

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Daniel LOPEZ (ANL, USA)
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Eric ISAACS (ANL, USA)

LOCAL ORGANIZER:

Erio TOSATTI
(ICTP-SISSA-Democritos, Trieste, Italy)

TUTORIAL SPEAKERS:

Atac IMAMOGLU (ETH, Switzerland)
Michal LIPSON (Cornell Univ., USA)
Lukas NOVOTNY (Rochester Univ., USA)
Vahid SANDOGHDAR (MaxPlanck Inst, Germany)
David SMITH (Duke Univ., USA)
Kerry VAHALA (Caltech, USA)
Peter VUKUSIC (Univ. of Exeter, UK)
Xiang ZHANG (UC Berkeley, USA)

INVITED SPEAKERS:

Hatice ALTUG (Boston Univ., USA)
Harry ATWATER (Caltech, USA)
Kenneth CROZIER (Harvard Univ., USA)
Enzo DI FABRIZIO (Fondazione IIT, Italy)
Jennifer DIONNE (Stanford Univ., USA)
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