

WINTER COLLEGE ON OPTICS AND PHOTONICS IN NANOSCIENCE AND NANOTECHNOLOGY

February 7 - 18, 2005
Miramare-Trieste, Italy

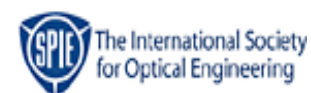
The Abdus Salam International Centre for Theoretical Physics (ICTP), in collaboration with the International Commission for Optics (ICO), the Optical Society of America (OSA), the International Society for Optical Engineering (SPIE) and the International Society on Optics Within Life Sciences (OWLS), will organize a *Winter College on Optics and Photonics in Nanosciences and Nanotechnology*, which will be held at ICTP, Trieste, Italy, from *February 7 to 18, 2005*.

DIRECTORS: V. Degiorgio (Dip. di Elettronica, Università di Pavia, Italy)
R. De La Rue (Dept. of Electronics, University of Glasgow, U.K.)
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LOCAL ORGANIZER: G. Denardo (ICTP, Italy)



The College will expose the participants to physics of new phenomena that occur in light-matter interactions at the sub-500 nm scale. Applications to interdisciplinary fields such as biophotonics will be treated. The College is organized in collaboration with ICS-UNIDO for the part relevant to optical methods for the fabrication and characterization of nanostructures. The programme consists of lectures by international experts, group discussions and laboratory demonstrations. The aim is to provide the background needed to follow the most advanced literature.



MAIN TOPICS

- *Near-field optical microscopy*
- *Near-field and field-enhanced nonlinear optics*
- *Optical properties of dielectric and metallic nanoparticles*
- *Spectroscopy at single-molecule level: surface-enhanced Raman scattering*
- *Semiconductor and polymer nanostructures: emitters, modulators, detectors*
- *Integrated optics: waveguides, photonic crystals, metamaterials*
- *Biophotonics at the nanoscale*
- *Nanotechnology: methods and applications*



International Society on
Optics Within Life Sciences
Non-Profit Organization established on August 13, 1990

The **LAMP** (Laser, Atomic and Molecular Physics) programme will include group discussions and internal seminars by participants. Those who intend to deliver a seminar are expected to come to ICTP prepared with all the material needed for their talk.

PARTICIPATION

Scientists and students from all countries that are members of the UN, UNESCO or IAEA can attend the College. As it will be conducted in English, participants should have an adequate working knowledge of that language.

As a rule, travel and subsistence expenses of the participants are borne by the home institutions. However, limited funds are available for some participants from developing countries, who will be selected by the Organizers. Such financial support is available only for those who attend the entire activity. As scarcity of funds allows travel to be granted only in a few exceptional cases, every effort should be made by candidates to secure support for their fare (or at least half-fare) from their home country. There is no registration fee to attend the College.

The closing date for requesting participation is **OCTOBER 15, 2004**. The request for participation form, to be found at the back of the Bulletin, (also obtainable from the ICTP WWW Server: <http://agenda.ictp.trieste.it/smr.php?1643>), should be completed, signed and sent to:

the Abdus Salam International Centre for Theoretical Physics
Winter College on Optics and Photonics (c/o Ms. Valerie Shaw)
Strada Costiera 11
I-34014 Trieste, Italy

If sending your applications by e-mail, please save and send file attachments in RFT format to:
smr1643@ictp.trieste.it

The decision of the Organizers will be communicated to all candidates as soon as possible.

Telephone: +39-040-2240541 Telefax: +39-040-224531 E-mail: smr1643@ictp.trieste.it

**Deadline for
Requesting funds**

October 15, 2004



