



The Abdus Salam
International Centre for Theoretical Physics



**FIRST ICO/ICTP/TWAS
Central American Workshop in
Lasers, Laser Applications and Laser Safety
Regulations**

30 April - 11 May 2012

(San José de Costa Rica, Costa Rica)

The Abdus Salam International Centre for Theoretical Physics, in collaboration with the International Commission for Optics (ICO), the Third World Academy of Sciences (TWAS), the Iberian American Network on Optics (RIO), and the Latin American and Caribbean Consortium of Engineering Institutions (LACCEI), is organizing a **Central American Workshop in Lasers, Laser Applications and Laser Safety Regulations**, which will be held at the Universidad de Costa Rica, San José de Costa Rica, Costa Rica, *from 30 April to 11 May, 2012*.

The invention of the laser in 1960 gave birth to a fifty years era of enormous progress in science and in technology. For the 21st century, the dramatic development of new laser sources is leading to a very rich technological map in which an important amount of basic and applied research and associated technologies are present in all fields of science. The Workshop will be devoted to a revision of the fundamental concepts of laser radiation and applications to optical communications, industry and medicine. The aim is to contribute to the dissemination of the relevance of optics, photonics and laser technologies in Central America as key tools for the young generation's formation, in this area of the world, into relevant academic and scientific topics.

MAIN TOPICS:

- Physical foundations of laser radiation
- Fundamentals of laser resonators including conventional and holographic cavities
- Light source characterization and coherence properties
- Laser power measurement techniques
- Laser safety regulations
- Radiometry, photometry and illumination systems
- Laser spectroscopy: fundamentals and applications
- Solid state lasers (SSL) and their applications
- Systems formed with LED (with Lab)
- Fiber optics and applications to telecommunications (with Lab)
- Applications of fiber lasers in telecommunications and industry
- Photodynamic therapy (with Lab)
- Optical fibers doped with rare earths and fiber optics lasers

Some topics will include hands-on activities in the lab. There will be two seminar sessions intended for presentations by the participants. All participants are encouraged to present their own research, either in poster form or as an oral presentation. Please submit with your application the abstract of your presentation, or a short essay on your current research interests.

Participation

Applicants from all countries that are members of the United Nations, UNESCO or IAEA may attend. 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 the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants, who are nationals of, and working in, a developing country. Such support is available only for those who attend the entire activity. *There is no registration fee.*

HOW TO APPLY FOR PARTICIPATION

The Online Application can be accessed at the activity website: <http://agenda.ictp.it/smr.php?2381>. Comprehensive instructions will guide you step-by-step on how to fill out and submit the application form. Kindly send all file attachments in Word or Acrobat format.

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IN COLLABORATION WITH:



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**Application
DEADLINE**

29 January 2012