



The Abdus Salam
International Centre for Theoretical Physics



SMR.2018
July 2008

WINTER COLLEGE ON OPTICS IN ENVIRONMENTAL SCIENCE

2 - 13 February 2009

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bulletin





WINTER COLLEGE ON OPTICS IN ENVIRONMENTAL SCIENCE

2 - 13 February 2009

The Abdus Salam International Centre for Theoretical Physics (ICTP), in collaboration with the Central European Initiative (CEI), the European Optical Society (EOS), the International Commission for Optics (ICO), the International Society for Optical Engineering (SPIE), the Optical Society of America (OSA), and the Societa' Italiana di Ottica e Fotonica (SIOF), will organize a Winter College on Optics in Environmental Science, which will be held at the ICTP, Trieste, Italy, from 2 to 13 February, 2009.

DIRECTORS:

A. Consortini (University of Florence, Italy)
R.P. Singh (Indian Institute of Technology Kanpur, India)
S. Svanberg (Lund University, Sweden)

LOCAL ORGANIZER:

J. Niemela (ICTP, Italy)

I. PURPOSE AND NATURE

The Winter College will expose the participants to recent achievements of the theory and applications of optical techniques for assessment of the environment. The scientific programme consists of lectures by international experts, internal seminars and group discussions, some laboratory demonstrations. The aim of the Winter College is to provide the background needed to follow the most advanced literature.

Main Topics:

- Scattering and propagation in the atmosphere at optical frequencies
- Fundamentals of optical spectroscopy
- Basics of multi-spectral imaging
- Principles of remote sensing from ground- and satellite-based platforms
- Lidars and Sensors

With applications to:

- Diagnostics of the environment
- Atmospheric monitoring
- Remote sensing of land, vegetation, water, and atmosphere
- Agriculture and natural hazards

An ICTP **PREPARATORY SCHOOL** will be organized the week before the College (from **26 to 30 January 2009**) for a limited number of selected participants. The purpose is to recollect some basic scientific elements that are relevant to the contents of the College lectures. The School sessions will have a tutorial structure, i.e. will include lectures and exercises.

The LAMP (Laser, Atomic and Molecular Physics) programme will include poster sessions and short seminars by participants based on their own research. All participants will be invited to submit an abstract and indicate preference of presentation format (poster or talk).

The ICO-ICTP Gallieno Denardo Prize (nominations are solicited) will be awarded during the ICTP Winter College (see info. on page 3 and 4).

II. 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.

A limited number of grants will be made available by the Central European Initiative (CEI) Secretariat in Trieste to support participants from CEI countries.

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.

Deadline for the RECEIPT of request for participation form:

15 OCTOBER 2008

Candidates should complete and sign the attached Request for Participation form, "Application Form" (also obtainable from : <http://agenda.ictp.it/smr.php?2018>) and return it by using only one of the following ways:

- **by e-mail** to: smr2018@ictp.it (please save and send file attachments in either PDF -preferably- or RTF zipped or Doc format)

or

- **by post** to:
SMR 2018 - Winter College on Optics in Environmental Science
the Abdus Salam International Centre for Theoretical Physics
Strada Costiera 11
I-34014 Trieste, Italy

Any attachments to the request for participation, relevant to additional information for selection purposes, should not exceed 6 pages.

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

III. ICO-ICTP Gallieno Denardo Award 2009: call for nominations

ICO, the International Commission for Optics, has established three awards: the 'ICO Prize', the 'ICO Galileo Galilei Award' and the 'ICO-ICTP Gallieno Denardo Award' (formerly 'ICO/ICTP Award'). The latter was established jointly with the ICTP. For more information follow the links to the call for nominations on the website: <http://prizes.ictp.it/ICO>.

The deadline for nominations is **10 December 2008**.

The ICO-ICTP Gallieno Denardo Award is reserved for young researchers from developing countries (as defined by the United Nations), who conduct their research in a developing country. The award will be given to scientists who are less than 40 years old (on 31 December of the year for which the award is given), who are active in research in Optics and have contributed to the promotion of research activities in Optics in their own or another developing country. While the ICO Web page (<http://www.ico-optics.org>) has complete information, the instructions below should be sufficient to prepare nominations.

The **Award** consists of the following:

- 1) the ICO gives a cash amount of US\$ 1000 and a certificate;
- 2) the ICTP invites the winner to attend a College at the ICTP, Trieste, when the next appropriate opportunity arises, and to give a seminar on his/her work. ICTP will pay for travel and living expenses.

The award will be delivered to the winner in Trieste in the presence of representatives of ICO and ICTP. This award is given every year. The winner is selected on the basis of nominations received by the Award Committee in response to a 'Call for Nominations' published by both the ICO and the ICTP. The nominations must be documented by a complete Curriculum Vitae, including a list of publications and selected reprints (no more than three), as well as a complete employment history and description of the nominee's achievements for the promotion of research activity in *developing countries*.

The winners of previous awards are:

- 2000: Arbab Ali Khan (Pakistan)
- 2001: Arashmid Nahal (Iran) and Fernando Perez Quitian (Argentina)
- 2002: Aiphan Sennaroglu (Turkey)
- 2003: Robert Szpocs (Hungary)
- 2004: Imrana Ashraf Zahid (Pakistan) and Revati Nitin Kulkarni (India)
- 2005: Sarun Sumriddetchkajorn (Thailand)
- 2006: Hector Manuel Moya-Cessa (Mexico)
- 2007: Svetlana V. Boriskina (Ukraine)
- 2008: Mourad Zghal (Tunisia)

The Award Committee consists of Prof. A. Wague, Department of Physics, Faculty of Science and Techniques, University Cheikh Anta Diop, Dakar, Senegal, e-mail wague@ucad.refer.sn or wague@sentoo.sn, Chair; Prof. J. Niemela of ICTP, Trieste, Italy, Prof. A. Consortini of University of Florence, Italy and Dr M. Danailov of Synchrotrone Trieste, Italy. Return the nomination form, together with supporting information, no later than **10 December 2008**, to the Award Committee Chair, Prof. A. Wague Department of Physics, Faculty of Science and Techniques, University Cheikh Anta Diop, Dakar, Senegal, e-mail **wague@ucad.refer.sn or wague@sentoo.sn**, with a copy to Prof. Joseph Niemela, Abdus Salam International Centre for Theoretical Physics, PO Box 586, I-34100 Trieste, Italy, **niemela@ictp.it**.

Instructions on how to submit a nomination follow:

Nominations should include all information listed below

- Full name of nominee
- Nominator's name and address
- Nominator's signature, date
- Date of birth of nominee
- Business address
- Academic background, education (college or university, location, major field, degree, year awarded)
- Academic honors
- Employment history (position, organization, duties, dates)
- Publications, patents, unpublished reports, papers presented at meetings, etc. (attach a list of those you deem pertinent)
- Honors and awards
- Scientific achievements for which the candidate is nominated for this award: attach a separate sheet)

Notes:

Nominators are encouraged to generate supporting letters. Each supporting letter must come from a different country or ICO Territory and bring additional information on the case. The number of supporting letters will not be a selection criterion. The recipient will be expected to give a presentation based upon his/her achievements at the next appropriate ICTP/ICO event.

the ABDUS SALAM INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS

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I-34014 Trieste
Italy

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E-mail: smr2018@ictp.it

APPLICATION FORM

**Winter College on Optics in Environmental Science
2 - 13 February 2009**

INSTRUCTIONS

Each question must be answered clearly and completely. Type or print in ink.
Return the form as indicated on the Guidelines for Requesting Participation.
Deadline: **15 October 2008**

Please attach
your recent
photograph
(passport size).

PERSONAL DATA

SURNAME/FAMILY Name: MAIDEN Name: First name: Middle name(s): Gender:
For women only (if applicable)

IMPORTANT: PLEASE SPELL THE NAME EXACTLY AS IT APPEARS IN YOUR PASSPORT IF
DIFFERENT FROM THE ABOVE.

SURNAME/FAMILY Name: MAIDEN Name: First name: Middle name(s):
(if applicable)

Place of birth (*City and Country*): Present nationality: Date of birth: *Day - Month - Year*

Full name and address of permanent Institution: Institute: Tel. No.
Telefax
Your office: Tel. No.
Telefax
E-mail: *

Full name and address of present Institution: Institute: Tel. No.
(only if different from the permanent address) Telefax
Your office: Tel. No.
Telefax:
E-mail: *

until: Date

Mailing address - please indicate one: Permanent ☐ Present ☐ Other ☐
If Other, please specify full address: Tel.No.
Telefax
E-mail: *

* I agree that my e-mail address(es) may be made public on the ICTP WWW page: YES ☐ NO ☐

PROFESSIONAL DATA

EDUCATION *(higher degrees)*

<u>University or equivalent</u> Name and place	<u>Years attended</u> From to	<u>Degrees</u>
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EMPLOYMENT (last 5 years)

<u>Institute / Place</u>	<u>Period of duty</u>	<u>Positions</u>
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Foreseen employment upon return to home country after the activity (if different from the present):

State any other relevant positions and/or responsibilities you hold or have held in the last 5 years:

List your **scientific publications** including books and articles (authors, title, Journal) in the last 5 years:

Seminars, summer schools, conferences or research attended **outside ICTP** in the last 5 years:

<u>Name and place</u>	<u>Year</u>
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Mention briefly your research experience, and explain your reasons for wishing to participate in this activity:

Do you wish to participate in the **Preparatory School** to the Winter College on Optics in Environmental Science, which will be held at ICTP **from 26 to 30 January 2009**?

YES ☐ NO ☐

