



The Abdus Salam
**International Centre
for Theoretical Physics**



INTERNATIONAL
YEAR OF LIGHT
2015

PHYSWARE 2015

Preparing 21st century physics teachers

25 - 30 January, 2015
Miramare, Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP) and International Commission on Physics Education (ICPE) are organizing a PHYSWARE workshop, to be held at ICTP, Trieste, Italy, from 25 January to 30 January 2015. The workshop is intended for those who prepare physics teachers (physics-teacher educators).

It is critical to educate teachers in proven methodologies that allow their students to participate in science inquiry, develop science practices and be able to bring the latest achievements of physics into the classroom. In this workshop physics teacher educators will learn how to prepare teachers who can engage their students in learning physics through practicing it and who will know how to seamlessly integrate modern physics concepts and devices into traditional curriculum. This learning will occur in the context of light emitting diodes (LED). LEDs are perfect for achieving the twin goals of scientific best practices and integration of modern physics since they allow a broad range of experiments, creation of multiple hypotheses and applications in addition to being cheap and universally available. Participants will spend 6 days learning how to use LEDs in the areas of kinematics, energy, electric fields, electric circuits, optics, light and atomic physics so that they can later help their students learn relevant physics through guided inquiry processes. The participants will also learn how to connect this learning of physics to the preparation of physics teachers.

Participation

Participants from all countries that are members of the United Nations, UNESCO or IAEA may attend the Activity. All applicants should have a strong background in physics. As the workshop will be conducted in English, participants should have an adequate working knowledge of that language. Although the main purpose of the Centre is to help participants from developing nations through a programme of training activities within the framework of international cooperation, participants 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 application form can be accessed at the activity website:

<http://agenda.ictp.it/smr.php?2755>

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

Deadline for requesting participation:
31 October 2014

Activity Secretariat:

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Co-Sponsors



International Commission on Physics Education
(ICPE)



European Physical Society (EPS)

Organizers:

G. Planinšič

(University of Ljubljana, Slovenia)

E. Etkina

(Rutgers University, USA)

R. Lambourne

(The Open University, UK)

Local Organizer:

J. Niemela

(ICTP, Italy)

Invited Speakers:

L. Dvořák

(Charles University Prague, CZ)

I. Dvořáková

(Charles University Prague, CZ)