



JOINT ICTP-IAEA ADVANCED SCHOOL ON DOSIMETRY IN DIAGNOSTIC RADIOLOGY And its Clinical Implementation

11 - 15 May 2009

Miramare, Trieste, Italy

The aim of this School is to contribute to the development of qualified and competent medical physicists, medical physics educators and metrologists by:

- Disseminating information about dosimetry for diagnostic radiology physics as described in the recently published TRS 457 'Dosimetry in Diagnostic Radiology: An international Code of Practice'. This document, in conjunction with ICRU 74, is the first standardised description of terms and processes in this field, forming a solid basis for dosimetry principles and practice that should be transferred to the medical radiological environment, particularly in developing countries,
- Facilitating the creation of a network for the exchange of information on radiology x-ray physics among scientists in developing and developed Member States.

For some time now there has been a growing awareness that radiation dose originating from medical diagnostic procedures in radiology, is contributing an increasing proportion to the total population dose and this is particularly evident for computed tomography and interventional fluoroscopy procedures. The dosimetry involved however can be surprisingly complex due to the diverse range of examination types, and the resultant development of new dosimetric measurement instruments, techniques and terminologies which present challenges to those working in the clinical environment, those supporting them in calibration facilities and those teaching in educational institutions. Recently the approach to radiology dosimetry has been standardised through publications from ICRU and IAEA. This advanced school will take a comprehensive approach to the principles of diagnostic x-ray dosimetry and the calibration of instruments, leading to recent developments in dose determination for advanced modalities such as digital imaging, CT and interventional radiology.

PARTICIPATION

The advanced school would seek to target medical physicists with responsibility in diagnostic radiology, metrologists and teachers involved in medical physics education programmes. Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the School. As it will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Abdus Salam International Centre for Theoretical Physics is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, 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 from developing countries, to be selected by the organizers. 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?2033>

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

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TOPICS

Dosimetry framework, quantities units and formalism

Selection of instrumentation

Calibration at an SSDL facility

Dosimetry in general radiography, fluoroscopy, interventional radiology, mammography, computed tomography and dental radiography

Use of phantoms and patient data in dosimetry

Dosimetry and DICOM

Organ dose estimation

Clinical calibration

APPLICATION DEADLINE

15 February 2009