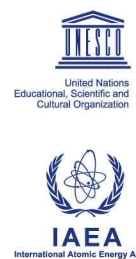




The Abdus Salam
**International Centre
for Theoretical Physics**
www.ictp.it



Workshop on **Nuclear Data for Science and Technology: Medical Applications**

**30 September – 4 October 2013
Miramare – Trieste, Italy**

The Abdus Salam International Centre for Theoretical Physics (ICTP, Trieste, Italy) in cooperation with the International Atomic Energy Agency (IAEA, Vienna, Austria) is organizing a Workshop on “Nuclear Data for Science and Technology: Medical Applications” to be held at ICTP, Trieste, Italy. The Workshop will continue a series of “Nuclear Data for Science and Technology” workshops initiated in 1999 (SMR1148) and continued in 2007 (SMR1868) and 2011 (SMR H270).

PURPOSE OF THE WORKSHOP

Recent years have witnessed an ever increasing use of nuclear radiation in medicine both for diagnostic and therapeutic purposes. Diagnostic nuclear techniques (e.g., SPECT and PET) offer formidable possibilities for human body research, which are complementary or superior to other available non-nuclear methods. New hybrid concepts in diagnosis and internal radionuclide therapy are emerging: e.g. CT+PET and MRI+PET in diagnosis and radioimmunotherapy+PET, and therapy planning using PET in internal therapy. Specific nuclear radiations have been used in cancer therapy treatments for many years (X-rays and gamma rays), and very promising results can often be obtained with proton and heavy-ion irradiation. New radioisotopes have been introduced for diagnosis and therapeutic purposes. Radiolabelled compounds can be used to follow and quantify the metabolism of newly developed drugs. Targeted radiotherapy linking MAB and radioactive compounds is gaining widespread use. Efficient and safe application of these techniques requires appropriately trained and dedicated personnel.

The Workshop constitutes a unique opportunity for scientists and engineers to gain extensive and up-to-date training on the use and understanding of those nuclear data of relevance to the application of modern nuclear technology in therapy and diagnostics. Furthermore, participants will be introduced to the on-line retrieval of data for medical applications.

PARTICIPATION

Scientists and engineers from all countries that are members of the United Nations, UNESCO or IAEA may attend the Workshop. They should hold an advanced degree in nuclear physics, nuclear chemistry, medical physics, nuclear engineering or related subjects, and preferably possess several years' professional experience in nuclear physics, medical physics and/or medical application of nuclear technology. Participants will also be given the opportunity to give a short presentation of their own technical work at the workshop. As this activity will be conducted in English, participants must have an adequate working knowledge of this language. Although the main purpose of ICTP is to help scientists from developing nations through a programme of training activities within a framework of international cooperation, applicants from developed countries would equally benefit from the Workshop and are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by their home institutions. However, limited funds will be available to support some participants, who are nationals of, and working in, a developing country and who are not more than 45 years old, to be selected by the Organizers. Travel expenses will be granted only in exceptional cases. Every effort should be made by candidates to secure support for their fare (or at least half-fare) from their home country. It is stressed that participants whose travel expenses are paid by ICTP are required to attend the entire course. There is no registration fee for attending the Workshop.

HOW TO APPLY FOR PARTICIPATION

Application forms for the Workshop and agenda can be found at the activity website on the Web server of ICTP at: http://cdsagenda5.ictp.trieste.it/full_display.php?ida=a12207. Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and **submit online** the application form **not later than 15 June 2013**.

ACTIVITY SECRETARIAT

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February 2013



In cooperation with
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Topics to be covered will include:

- nuclear techniques used in radiotherapy and diagnostics
- data for radiotherapy
- review of nuclear data for medical applications
- measurement, modeling and evaluation of nuclear data for medical applications
- on-line retrieval of data for medical applications

DEADLINE

15 JUNE 2013