



School on Pulsed Neutrons: Characterization of Materials

15 - 26 October 2007

Miramare, Trieste, Italy

The International Atomic Energy Agency (IAEA) together with the Abdus Salam International Centre for Theoretical Physics (ICTP) will organize a **School on Pulsed Neutrons: Characterization of Materials**, which will be held at the ICTP, Trieste, Italy, from **15 to 26 October 2007**.

The School is designed to demonstrate to graduate and post-doctoral students the opportunities afforded by pulsed neutron probes and complementary methods (muons, X-ray sources including synchrotron radiation, NMR) in the investigation of materials for practical applications and to familiarize them with the principles and technology of pulsed neutron sources and their application. It will cover aspects of the design of pulsed neutron sources, explaining the flexibility and limitations that exist in providing customer-tailored beams for different kinds of applications. The School will include new developments in the research using neutrons. Exercises will be part of the School

The idea is to bring together potential future material scientists, establish contacts and generate a better mutual understanding on the one hand and to encourage the use of existing facilities on the other.

PURPOSE

The aim of this School is to spread knowledge on the technology and application potential of neutron sources - in particular pulsed ones - to the characterization of materials. While primarily focusing on materials research with neutrons, the complementary benefits by other methods will be emphasized by introductory lectures to these techniques in the first week. Lectures on theoretical principles and examples of practical research topics will be the subject of the second half of the School.

PARTICIPATION

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 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, and who are not more than 45 years old. Such support is available only for those who attend the entire activity. There is no registration fee.

The **Application Form** is obtainable from the ICTP WWW server: <http://agenda.ictp.trieste.it/smr.php?1866> (which will be constantly up-dated) or from the activity Secretariat. It should be completed and returned before **1 July 2007** to:

School on Pulsed Neutrons: Characterization of Materials

(smr 1866) (c/o Ms. Patricia Wardell)

the Abdus Salam International Centre for Theoretical Physics

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(please save and send file attachments in either: PDF(preferably) or RTF DOC format)

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TOPICS

Neutron Sources

*Layout of Pulsed Spallation Neutron
Sources*

*Theory and Methodology of Materials
Science with Neutrons*

Data Processing and Analysis

Complementary Methods and Probes

Selected Examples

Exercises

DEADLINE
for requesting participation

1 July 2007