The Abdus Salam
International Centre for Theoretical Physics

United Nations
Educational, Scientific
and Cultural Organization

International Atomic
Energy Agency

World Year of PHYSICS 2005

# SCHOOL ON
# Pulsed Neutron Sources: Enhancing the Capacity for Material Science

**17 - 28 October 2005**

***Miramare, Trieste, Italy***

The aim of this School is to spread knowledge on the technology and application potential of neutron sources - in particular pulsed ones - to materials science. While primarily focusing on materials research with neutrons, the complementary benefits offered by muons and synchrotron radiation will be emphasized by short introductions 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.

The School is designed to alert graduate and post-doctoral students to the possibilities offered by accelerator generated probes (neutrons, muons and synchrotron radiation) 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 all aspects of the design and optimization of pulsed neutron sources, explaining the flexibility and limitations that exist in providing customer-tailored beams for different kinds of applications. The idea is to bring together potential future source designers and users, establish contacts and generate a better mutual understanding on the one hand and to encourage the use of existing facilities on the other.

**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, 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.

The **Application Form** is available on the ICTP WWW server: **http://agenda.ictp.trieste.it/smr.php?1678** (which will be constantly updated) or from the activity Secretariat. It should be completed and returned before **15 June 2005** to:

**School on Pulsed Neutron Sources**
(smr 1678) (c/o Ms. Suzie Radosic)
the Abdus Salam International Centre for Theoretical Physics
Strada Costiera 11, 34014 Trieste, Italy.
**or**
**smr1678@ictp.trieste.it** (please save and send file attachments in RTF format)

**Telephone: +39-040-2240226 Telefax: +39-040-224163**
**E-mail: smr1678@ictp.trieste.it**
**ICTP Home Page: http://www.ictp.it**

February 2005

## DIRECTORS

**G. Bauer** (FZ-Juelich; ILL, Grenoble)

**G. Mank** (IAEA, Vienna)

## TOPICS

**Design and Use of Neutron Sources**

**Layout and Optimization of Pulsed Spallation Sources**

**Data Processing and Analysis**

**Accelerator Generated Complementary Probes**

**Theory and Methodology of Materials Science with Neutrons**

**Selected Examples of Materials Science with Neutrons and Complementary Probes**

## LOCAL ORGANIZER

**B. Stewart** (ICTP)

## APPLICATION DEADLINE

## 15 June 2005