



The Abdus Salam
**International Centre
for Theoretical Physics**
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Joint ICTP-VAST-APCTP

Regional School and Conference on Theoretical Physics in Topological Phases and Quantum Computation 9 - 20 December 2013, Hanoi, Vietnam

The Abdus Salam International Centre for Theoretical Physics (ICTP), the Institute of Physics (IOP) and the Vietnam Academy of Science and Technology (VAST), in collaboration with the Asia-Pacific Center for Theoretical Physics (APCTP) are organizing the second **Regional School on Theoretical Physics in Topological Phases and Quantum Computation**, to take place in **Hanoi, Vietnam from 9 to 13 December 2013**, followed by a **Conference from 16 to 20 December 2013**, taking place in **Ba Vi National Park, Hanoi**.

These are the first events being organized under the Joint-Agreement between VAST and ICTP to promote science education in Vietnam and the South-East-Asia Region.

Following the previous Regional School on Physics at Nanoscale (Hanoi 2009), this second School will be devoted to the emergent research field of Topological Phases in condensed matter physics. The programme spans from the most fundamental aspects of quantum physics of matter, to the discovery of topological effects therein and to their applications in the field of quantum computation.

The School is intended for young promising physicists (students and researchers) from Vietnam, Laos, Cambodia, and other South-East Asian countries. It is an ideal opportunity for M.Sc, and Ph.D students, and young researchers wishing to learn the basics of these fields from the world's leading experts.

The first week will consist of a series of lectures on the basic concepts in the theory of condensed matter and on that of quantum computation. The second week will be in the form of a conference, with talks aimed at presenting the latest and most advanced developments in the field.

TOPICS:

- **Topological Insulators and Topological Quantum Phase Transition;**
- **Quantum Computation with Topological States of Matter;**
- **Superconductivity in Topological Insulators;**
- **Disorder and Mesoscopic Systems.**

There will be a poster presentation session during the School, and should you be interested in presenting your poster, kindly submit a short one-page abstract along with your online application form.

PARTICIPATION

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend the activity. Priority will be given to advanced undergraduates, graduate students, post-doctoral researchers, faculty and research scientists from South-East Asian countries.

As it will be conducted in English, participants must have an adequate working knowledge of this language. Although the main purpose of the Centre is to help researchers 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 are borne by their home institutions. 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 to those attending the entire event. There is no registration fee for attending the activity.

Local Secretariat in Vietnam:

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INTERESTED IN APPLYING?
**An Application form can be
accessed at the following activity
website:**

<http://agenda.ictp.it/smr.php?2518>

**DEADLINE for
applying:**

31 August 2013