





Conference on Frustration, Disorder and Localization: Statics and Dynamics

28 September - 2 October 2015 (ICTP, Miramare, Trieste, Italy)

The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy is organizing a CONFERENCE ON FRUSTRATION, DISORDER and LOCALIZATION: STATICS and DYNAMICS, to be held at ICTP, Trieste, Italy, 28 September to 2 October 2015.

The purpose of this *Conference* is to unfold recent developments and modern applications to the theory of frustrated and disordered systems of the numerical techniques presented in the "School in Computational Condensed Matter Physics: From Atomistic Simulations to Universal Model Hamiltonians", taking place at ICTP, Trieste from 7 to 25 September 2015.

The overarching topic will be the interplay of interactions and disorder, be it dynamical or static. This is a rich field, with many crosslinks emerging, e.g. between the physics of Coulomb glasses and the response of topological magnetic phases to the introduction of disorder or between the quantum Hall effect and quantum particles hopping on a frustrated lattice. New developments in Condensed Matter Physics will be discussed, particularly in fields that blend analytical methods with modern computational tools like DMRG, parallelized ED, MPS, DMFT, Quantum Montecarlo etc.

TOPICS:

DYNAMICS IN FRUSTRATED MAGNETS TOPOLOGICAL PHASES: Topology and Symmetry; Topology, Disorder and Localization; Realizations in Magnets SYSTEMS WITH SPIN-ORBIT INTERACTIONS AND **MAJORANA PHYSICS**

MANY-BODY LOCALIZATION: Experiments, Entanglement, **Topological Order and Disorder Free Systems** DRIVEN QUANTUM SYSTEMS AND NON-EQUILIBRIUM **QUANTUM DYNAMICS**

PARTICIPATION

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend the School. 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 for those who attend the entire activity. There is no registration fee.

HOW TO APPLY FOR PARTICIPATION

The online application form can be accessed at the activity website: http://indico.ictp.it/event/a14249/ Deadline: 15 May 2015

> **Activity Secretariat:** E-mail: smr2709@ictp.it

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ORGANIZERS:

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Siddharth PARAMESWARAN (UC. Irvine, USA)

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* also Local Organizer

SPEAKERS:

D. ABANIN (Perimeter, Ontario, Canada)

I. AFFLECK (UBC Vancouver, Canada)

E. ALTMAN (Weizmann, Rehovot, Israel)

P. CALABRESE (SISSA Trieste, Italy)

A. CHANDRAN (Perimeter, ON, Canada)

K. DAMLE (TIFR Mumbai, India)

A. DAS (IACS Kolkata, India)

W. de ROECK (KU Leuven, Belgium)

F. FRANCHINI (INFN - Florence, Italy)

V. GURARIE (Colorado, Boulder, USA)

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A. LÄUCHLI (Innsbruck, Austria)

C. LAUMANN (Washington, SE, USA)

C. MORA (ENS Paris, France)

R. NANDKISHORE (Princeton, USA)

T. NEUPERT (Princeton, USA)

V. OGANESYAN (CUNY NY, USA)

P. ORTH (Minnesota, Minneapolis, USA)

S. RACHEL (TU Dresden, Germany)

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R. VASSEUR (UC Berkeley, USA)

M. ZALETEL (Microsoft Station Q, Santa Barbara, USA)

DEADLINE for requesting participation:

15 MAY 2015

