



The Abdus Salam
International Centre for Theoretical Physics



Autumn College on
Non-Equilibrium Quantum Systems

2 - 13 May 2011

Buenos Aires, Argentina

This College will review the state of the art in the experiment and theory of quantum non-equilibrium phenomena mainly focused on low dimensional systems. Pedagogical lecture courses consist on 8 series of 2 - 4 lectures on general topics will encompass:

- Many-body localization
- Topological quantum computations
- Quantum noise: Theory and experiment
- Non-equilibrium physics in nano-structures
- 1D fermions beyond the Luttinger liquid theory
- Ultra-cold atomic gases out of equilibrium
- Methods of non-equilibrium many-body theory
- Non-equilibrium spintronics

LECTURERS:

Aleiner, I.L. - Columbia University, New York
Büttiker, M. - Université de Genève
Chamon, C. - Boston University
Glazman, L.I. - Yale University, New Haven
Kamenev, A. - University of Minnesota, Minneapolis
Markus, C. - Harvard University, Cambridge
Salomon, C. - Ecole Normale Supérieure, Paris

SPEAKERS:

Altshuler, B.L. - Columbia University, New York
Birge, N.O. - Michigan State University, East Lansing *)
Cirac, I.J. - MPI of Quantum Optics, München *)
Cugliandolo, L.F. - Université Pierre et Marie Curie, Paris
Gefen, Y. - The Weizmann Institute of Science, Rehovot
Kiselev, M.N. - International Centre for Theoretical Physics, Trieste
Marquardt, F. - Friedrich-Alexander-Universität Erlangen-Nürnberg
Molenkamp, L.W. - Universität Würzburg
Mussardo, G. - International School for Advanced Studies, Trieste
Pastawski, H.M. - Universidad Nacional de Cordoba
Refael, G. - California Institute of Technology, Pasadena
Shekhter, R. - University of Gothenburg
Shlyapnikov, G. - Université XI, Paris
Stern, A. - The Weizmann Institute of Science, Rehovot
von Delft, J. - Ludwig-Maximilians-Universität München
von Oppen, F. - Freie Universität Berlin
Yacoby, A. - Harvard University, Cambridge *)

*) to be confirmed

Participation

Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the College. The activity is aimed to young researchers from developing countries working or planning to study physical phenomena out of equilibrium and its applications in quantum systems. Priority will be given to advanced undergraduates, graduate students, postdoctoral researchers, faculty and research scientists from Latin American countries.

As it will be conducted in English, participants should have an adequate working knowledge of that 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.

HOW TO APPLY FOR PARTICIPATION

The application form can be accessed at the activity website

<http://agenda.ictp.it/smr.php?2280>

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form.

You may address general requests for information to the College secretary:

Ms. M. Poropat (smr. 2280)
the Abdus Salam International Centre for Theoretical Physics
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Studies, Trieste)

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(Freie Universität Berlin)

LOCAL ORGANISERS:

Liliana ARRACHEA
(Universidad de Buenos Aires)

Gustavo S. LOZANO
(Universidad de Buenos Aires)

DEADLINE
for requesting
participation:
10 January 2011
(if requesting funds)

15 February 2011
(if requesting neither
funds nor visa assistance)