







# School on Cooperative Phenomena in Condensed Matter: From Bose-Einstein Condensates to Quantum Optics

## 2 - 13 November 2015

University of Buea, Cameroon

The Abdus Salam International Centre for Theoretical Physics, in collaboration with the University of Buea (South West, Cameroon) is organizing a School on Cooperative Phenomena in Condensed Matter: From Bose-Einstein Condensates to Quantum Optics, to be held at the University of Buea, Cameroon, from 2nd to 13th November 2015.

The School focuses on cooperative phenomena in condensed matter physics with special emphasis on atomic systems (ultra-cold gases), mesoscopic systems (quantum dots, nanostructures) and quantum optics. Possible ways of interfacing and complementing these systems will be discussed as well as their applications to quantum transport, quantum information processing and quantum optics.

The activity will combine lectures which pedagogically summarize the main challenges and recent results in each area with short presentations, especially from young researchers, and roundtable sessions. Poster sessions will be also encouraged to stimulate discussions.

#### **TOPICS**

- Ultra-cold gases, BEC, superfluidity, Mott insulators;
- Disordered systems (localization);
- Quantum transport through nanostructures;
- Quantum information processing (adiabatic quantum computations);
- Strong light-matter interaction;
- Quantum optics.

## LIST OF INVITED LECTURERS AND SPEAKERS

A.E.M. Buchleitner, Albert Ludwigs University Freiburg

A.M. Dikande, University of Buea

G.H. Gebreyesus, Accra/Ghana & Addis Ababa/Ethiopia

Y. Gefen, The Weizmann Institute of Science, Rehovot

A. Hassanali, ICTP, Trieste

A. Kastberg, Université de Nice-Sophia Antipolis

A. Kenfack, Freie Universität Berlin

M. Kiselev, ICTP, Trieste

T.C. Kofane, University of Yaounde' I

C.F. Lukong, University of Dschang

M. Maaza, UNISA & iThemba Labs., Cape Town \*

Y. Meir, Ben Gurion University, Beer Sheva B. M'Passi Mabiala, Univ. M. Ngouabi, Brazzaville\*

T. Rasing, Radbound University, Nijmegen

C. Tchawaoua, University of Yaounde' I

\* (to be confirmed)

## **Participation**

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

As lectures and talks will be given 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://indico.ictp.it/event/a13259/

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:

Ms. Milena Poropat (smr. 2639)
the Abdus Salam International Centre for Theoretical Physics
Strada Costiera 11 - 34014 Trieste, Italy
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E-mail: <a href="mailto:smr2639@ictp.it">smr2639@ictp.it</a>
ICTP Home Page: <a href="http://www.ictp.it">http://www.ictp.it</a>







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 and Applied Physics, London

## **DIRECTORS:**

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## **LOCAL ORGANIZERS:**

A.M. DIKANDE (University of Buea, Cameroon)

> C.F. LUKONG (University of Dschang)

**DEADLINE** for applications with financial support request and needing visa:

15th August 2014

**DEADLINE** for applications NOT requiring financial support, nor visa:

15th September 2014

