

Workshop on Probing and Understanding Exotic Superconductors and Superfluids

(27 - 31 October 2014)

Miramare - Trieste, Italy









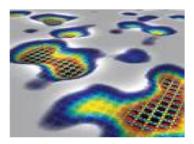
The Abdus Salam International Centre for Theoretical Physics (ICTP, Trieste, Italy) is organizing a **Workshop on Probing and Understanding Exotic Superconductors and Superfluids** to be held at the ICTP from the **27 - 31 October 2014**. This Workshop is co-sponsored by the ERC Grant SUPERBAD (G.A. 240524), by the Istituto Officina dei Materiali (IOM-CNR), by the BEC Center (University of Trento), and by the Institute for Complex Adaptive Matter/National Science Foundation (ICAM-12CAM/NSF).

Brief Description:

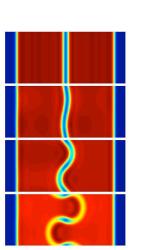
This Workshop is meant to showcase several new approaches to the experimental and theoretical understanding of superconductors and superfluids, comparing solid-state and cold-atoms advances with the aim of a cross-fertilization between the two fields. It will feature topics that are rapidly developing, ranging from novel (time-resolved and k-resolved) optical spectroscopies to new trapping and imaging methods for ultracold gases, with the unifying contribution of different theoretical approaches, such as Dynamical Mean-Field theory, Diagrammatic and Quantum Monte Carlo methods. Special attention will be devoted to the exotic superfluid and superconducting states which arise from the interplay between pairing, correlations, disorder and reduced dimensionality. The programme of the Workshop includes talks given by invited speakers and poster sessions. A limited number of contributed Abstracts will be selected for short talks and flash presentations.

Participation:

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend the Workshop. 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, who are nationals of, and working in, a developing country. Such support is available only for those who attend the entire activity. There is no registration fee.









ORGANIZERS: Massimo CAPONE (CNR-IOM & SISSA)

Antoine GEORGES (École Polytechnique CNRS & Collège de France)

Stefano GIORGINI (University of Trento)

Rudolf GRIMM (University of Innsbruck & IQOQI)

Dirk VAN der MAREL (University of Geneva)

LOCAL ORGANIZERS:

Sebastiano PILATI (ICTP, Trieste, Italy)

Vladimir KRAVTSOV (ICTP, Trieste, Italy)

INVITED SPEAKERS:

H. ALLOUL (Orsay) R. ARITA (Univ. Tokyo) D. BASOV (UC San Diego) **G. BAYM** (Urbana-Champaign) L. BOERI (Univ. Graz) **P. BOUYER** (Institut d'Optique) J.-P. BRANTUT (ETHZ) B. BUCHNER (Dresden) F. CARBONE (EPFL) C. CASTELLANI (Rome) A. CHUBUKOV (Univ. Wisconsin) F. DALFOVO (Univ. Trento) S. DAVIS (Cornell) L. de' MEDICI (Grenoble) I. EREMIN (Bochum) N. GEDIK (MIT) C. GIANNETTI (Catholic Univ. Brescia) **E. GULL** (Univ. Michigan) V. GURARIE (Boulder) M. HOLZMANN (Grenoble) B. KEIMER (MPI Stuttgart) M. KÖHL (Bonn) **G. KOTLIAR*** (Rutgers) A. LANZARA (UC Berkley) J. LESUEUR (ESPCI, Paris) G. MODUGNO (Univ. Florence, LENS) **S. NASCIMBÈNE** (ENS - Paris) Y. OHASHI (Keio Univ.) S. OSPELKAUS (Hannover) P. PIERI (Univ. Camerino) N. PROKOF'EV (Univ. Mass.) K. SENGSTOCK (Hamburg) **M. K. TEY** (Tsinghua University) M. TROYER (ETH Zurich) M. ZWIERLEIN (MIT, USA)

HOW TO APPLY FOR PARTICIPATION:

An Online Application Form can be accessed through the Workshop website <u>http://agenda.ictp.it/smr.php?2612</u>

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

Deadline: 1 JULY 2014

WORKSHOP SECRETARY: Ms. Doreen M. Sauleek

Email: <u>mailto: smr2612@ictp.it</u> ICTP Home page: <u>http://portal.ictp.it/</u>

(*) to be confirmed

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Trieste, February 2014