



The Abdus Salam International Centre for Theoretical Physics



Workshop on Effective Gravity in Fluids and Superfluids

9 - 13 July 2012

ICTP, Trieste, Italy

Description: a major problem of quantum field theory in curved spacetimes, and quantum gravity more generally, is the lack of sufficient observational and experimental guidance. To address this issue we proposing a multidisciplinary workshop to stimulate the exchange of ideas involving possible connections between quantum gravity and easy-to-access physical systems whose description is well-established in other fields, such as fluid dynamics and superfluidity. The proposed workshop brings together the following communities:

- Semi-classical quantum gravity
- Analogue gravity
- Experimental and theoretical fluid dynamics
- Experimental and theoretical superfluidity

List of invited Lecturers and Speakers:

Anders Peter Andersen (Technical University of Denmark), **Roberto Balbinot** (Università di Bologna, Italy), **Carlos Barcelo** (IAA, Granada), **Carlo Barengi** (University Newcastle, UK), **Robert Bingham** (STFC Rutherford Appleton Laboratory and University of Strathclyde, Scotland), **Tomas Bohr** (Technical University of Denmark), **David Bruschi** (University of Nottingham, UK), **Iacopo Carusotto** (Università di Trento, Italy), **Daniele Faccio** (Heriot-Watt University, Edinburgh), **Emmanuel Fort** (University Paris Diderot Centre, France), **Ted Jacobson** (University of Maryland, USA), **Piyush Jain** (University of Alberta, Canada), **Jean-Christophe Jaskula** (Laboratoire Charles Fabry de l'Institut d'Optique Palaiseau, France), **Susanne Kehr** (University of St Andrews, UK), **Achim Kempf** (University of Waterloo, Canada), **Peter Kruger** (University of Nottingham, UK), **Greg Lawrence** (University of British Columbia, Canada), **Stefano Liberati** (SISSA, Italy), **Miguel Angel Martin-Delgado** (Universidad Complutense de Madrid, Spain), **Hanns-Christoph Nägerl** (University of Innsbruck, Austria), **Joseph Niemela** (ICTP, Italy), **Renaud Parentani** (LPT Université Paris-Sud, Orsay, France), **Andrew Jason Penner** (University of Southampton, UK), **Benni Reznik** (Tel Aviv University, Israel), **Mauricio Richartz** (Universidade Federal do ABC), **Ralf Schuetzhold** (University Duesburg-Essen, Germany), **Jeff Steinhauer** (Technion Israel Institute of Technology), **Ted Tedford** (University of St. Barbara, USA), **Bill Unruh** (University of British Columbia, Canada), **Matt Visser** (Victoria University of Wellington, New Zealand), **Christoph Westbrook** (Laboratoire Charles Fabry de l'Institut d'Optique Palaiseau, France).

Participation

Scientists and students from all countries which 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 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?2355>. Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form.

Activity Secretariat:

The Abdus Salam International Centre for Theoretical Physics (ICTP)
(SMR 2355), Strada Costiera 11, I-34151 Trieste, Italy

Telefax: +39-040-2240-7455 - E-mail: smr2355@ictp.it - ICTP Home Page: <http://www.ictp.it/>

Directors

Joseph Niemela
(ICTP, Trieste, Italy)

W. G. Unruh
(UBC, Vancouver, Canada)

Silke Weinfurter
(SISSA, Trieste, Italy)



**Deadline for requesting
participation:**

31 March 2012