

# International Conference on Multi-Condensate Superconductivity and Superfluidity in Solids and Ultra-Cold Gases



**14 - 18 May 2018**  
**Trieste, Italy**

Further information:  
<http://indico.ictp.it/event/8310/>  
[smr3204@ictp.it](mailto:smr3204@ictp.it)

The standard picture of superconductors and superfluids is based on the existence of a single quantum condensate, but recent advances in material science and ultracold atoms opened a paradigm of multicomponent quantum fluids. New directions in this multifaceted and booming field are opened by emergent 2D materials, heterostructures, multiorbital materials, and ultracold atomic mixtures, in which superconductivity and superfluidity are readily realized, and where links between observed quantum effects can be made and knowledge can be cross-fertilized. This MultiSuper conference is aimed to help understand, quantify, and manipulate the effects of hybridization between multiple condensates in a single system, as a pathway to yet unseen quantum phenomena. The key experts will be assembled to present and interpret state-of-the-art experiments and theory, and advance fundamental physics and material science in this field.

## Topics:

- Novel quantum phenomena in multicomponent superconductors and superfluids
- Competing orders in multicomponent quantum systems
- Multicomponent superconductivity and superfluidity in 2D materials and heterostructures
- Topological effects in multicomponent quantum systems
- Vortical and skyrmionic states in multicomponent quantum fluids

## How to apply:

Online application:  
<http://indico.ictp.it/event/8310/>

Female students and scientists are encouraged to apply.

## Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

## Directors:

M. CAPONE (SISSA, Italy)  
M. V. MILOSEVIC (University of Antwerp, Belgium)  
A. PERALI (University of Camerino, Italy)

## Local organizer:

R. FAZIO, ICTP, Italy

## Confirmed speakers:

Saeed Abedinpour (IASBS, Zanjan)  
Vanderlei S. Bagnato (University of Sao Paulo)  
Antun Balaz (Institute of Physics Belgrade)  
Antonio Bianconi (RICMASS, Rome)  
Lara Benfatto (CNR and Rome "Sapienza")  
Francois Dubin (INSP, Paris)  
Stephen D. Edkins (Cornell University, New York)  
Leonardo Fallani (LENS and University of Florence)  
Laura Fanfarillo (SISSA, Trieste)  
Stefano Giorgini (University of Trento)  
Walter Hofstetter (Goethe-Universität, Frankfurt)  
Allan MacDonald (University of Texas at Austin)  
David Neilson (University of Camerino & University of Antwerp)  
Muneto Nitta (Keio University, Tokyo)  
Sebastiano Peotta (Aalto University, Finland)  
Nick Proukakis (University of Newcastle, UK)  
Dimitri Roditchev (INSP, Paris)  
Carlos Sa de Melo (Georgia Tech, Atlanta)  
Arkady A. Shanenko (University of Pernambuco, Recife)  
Daniela Stornaiuolo (University of Naples Federico II)  
Jacques Tempère (University of Antwerp)  
Alexei Vagov (Bayreuth University, Germany)  
Andrey Varlamov (CNR-Spin, Rome)

## Deadline:

Deadline for requesting to participate with financial support:

**15 February 2018**

Deadline for requesting to participate without financial support:

**1 March 2018**



MultiSuper Network



fwo



The Abdus Salam  
International Centre  
for Theoretical Physics  
[www.ictp.it](http://www.ictp.it)  
Trieste, Italy

