

Hybrid workshop

## Connections between Cold Atoms and Nuclear Matter: from low to high energies

Villazzano, 6-10 June

### Topics

In this workshop, theorists working in cold atoms and nuclear matter will be brought together to exchange ideas between the two fields. Given that ultracold atoms can be used as quantum simulators of situations that are relevant to nuclear matter, a few experimentalists working with ultracold bosons and fermions will present new results that require deeper theoretical understanding. Their presentations will stimulate cross pollination between theorists working in the two communities. Topics to be covered in the workshop include unitary gases, long-ranged dipolar interactions, optical lattices and lattice chromodynamics, artificial spin-orbit coupling, supersolidity and collective excitations.

### Organizers

Carlos **Sa de Melo** (Georgia Institute of Technology, Atlanta/US)  
Alexandros **Gezerlis** (University of Guelph, Guelph/CA)

### Key speakers

Monica **Aidelsburger** (LMU Munich), Yvan **Castin** (ENL- Paris), Joe **Carlson** (Los Alamos), Denis **Lacroix** (Orsay), Dean **Lee** (Michigan State), Piotr **Magierski** (Warsaw), Francesco **Marino** (Milan), Giovanni **Modugno** (Florence-Pisa), Henning **Moritz** (Hamburg), Sergej **Moroz** (Karlstad), Nir **Navon** (Yale), Amy **Nicholson** (North Carolina), Silke **Ospelkaus** (Hannover), Thomas **Papenbrock** (Tennessee), Guido **Pupillo** (Strasbourg), Alessio **Recati** (Trento), Alessandro **Roggero** (Trento), Luis **Santos** (Hannover), Srimoyee **Sen** (Iowa State), Sandro **Stringari** (Trento), Andrea **Trombettoni** (University of Trieste), Michael **Urban** (Orsay), Senne **van Loon** (Gatech-Antwerp), Neill **Warrington** (INT), Daisuke **Yamamoto** (Tokyo)

### Director of the ECT\*: Professor Gert Aarts

The ECT\* is part of the Fondazione Bruno Kessler. The Centre is funded by the Autonomous Province of Trento, funding agencies of EU Member and Associated states, and by INFN-TIFPA and has the support of the Department of Physics of the University of Trento.

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