

Sunday, July 29

- 15:00 Departure bus Barcelona University
15:30 Departure bus Barcelone Airport - Benasque

Monday, July 30

- 09:00 - 09:30 Welcome
09:30 - 10:30 **Correlations and entanglement in a deterministically prepared few body system**
S. Jochim
10:30 - 11:00 **Towards a register of single-atoms in a fiber cavity for generation of multi-particle entanglement**
A. La Rooij
11:00 - 11:30 Coffee Break
11:30 - 12:30 **Josephson oscillations of strongly-correlated one-dimensional Bose gases**
A. Minguzzi
12:30 - 13:00 **Hydrodynamics of 1d bosons with delta repulsion in the Quantum Newton Cradle setup**
J. Dubail
13:00 - 15:00 Lunch Break
15:00 - 16:00 **Creating and guiding quasiparticles in small integer and fractional Chern-insulator-droplets using optical solenoids**
A. Eckart
16:00 - 16:30 **An efficient non-linear Feshbach engine**
S. Campbell
16:30 - 17:00 Tea Break
17:00 - 17:30 **Dynamic structure function of interacting bosons in a one dimensional trap**
A. Polls
19:30 - ... Welcome Reception

Tuesday, July 31

- 09:00 - 10:00 **Cooling a quantum gas by losses**
I. Bouchoule
10:00 - 10:30 **Raise and fall of a bright soliton in an optical lattice**
J.P. Polo
10:30 - 11:00 Coffee Break
11:00 - 12:00 **Quantum effects in matter-wave breathers: the Bethe-ansatz analyses**
V. Yurovsky
12:00 - 12:30 **Roton in a many-body dipolar system**
R. Ołdziejewski
12:30 - 15:00 Lunch Break
15:00 - 16:00 **Self-bound quantum droplets of atomic mixtures in free space**
M. Fattori

16:00 - Tea Break, Poster Session & Discussions

Wednesday, August 1

- 09:00 - 10:00 **Spin dynamics and thermodynamics of few-atom systems coupled to tailored baths**
A. Widera
- 10:00 - 10:30 **A single atom platform for quantum anomalies**
R. Plestid
- 10:30 - 11:00 Coffee Break
- 11:00 - 12:00 **Nonequilibrium quantum dynamics of ultracold bosonic and fermionic mixtures: from few- to many-body systems**
P. Schmelcher
- 12:00 - 12:30 **How does a binary mixture separate in a three-well potential?**
A. Richaud
- 12:30 - Group Photo, Discussions, Posters

Thursday, August 2

- 09:00 - 10:00 **Small clusters modelled by continuous Hamiltonians**
M.C. Gordillo
- 10:00 - 10:30 **Creating a superfluid by kinetically driving a Mott insulator**
G. Pieplow
- 10:30 - 11:00 Coffee Break
- 11:00 - 12:00 **Asymmetric devices in cold-atom circuits**
J.G. Muga
- 12:00 - 12:30 **Andreev-reflection and Aharonov-Bohm dynamics in atomtronic circuits**
T. Haug
- 12:30 - 15:00 Lunch Break
- 15:00 - 16:00 **Ultracold atomic collisions for precise magnetometry**
A. Negretti
- 16:00 - 16:30 **Two interacting ultracold molecules in a one-dimensional harmonic trap**
Michał Tomza
- 16:30 - Tea Break, Poster Session & Discussions

Friday, August 3

- 09:00 - 10:00 **Designing efficient dynamical processes with interacting systems**
T. Fogarty
- 10:00 - 10:30 **Speeding up an adiabatic process in few-fermion system**
D. Pecak
- 10:30 - 11:00 Coffee Break
- 11:00 - 12:00 **Hard-core Few-body Interactions and in One and Two Dimensions**

N. Harshman

12:00 - 12:30 **Staircase in magnetization and entanglement entropy of spin squeezed condensates**

H.M. Bharath

12:30 - 13:00 Round Table

13:00 - 15:00 Lunch Break

15:00 - Tea Break & Discussions

Saturday, August 4

09:00 Departure bus Benasque - Barcelona Airport