

Quantum sensing and fundamental physics with levitated mechanical systems

Trento, 31 July – 3 August 2023

ORGANIZERS

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ABSTRACT

The workshop Quantum sensing and fundamental physics with levitated mechanical systems aims at bringing together theorists and experimentalists working in the field of levitated nano/micromechanical systems, using various platforms (optical, electrical, magnetic) and in related fields in order to discuss the most recent results and exchange ideas in order to explore new opportunities in quantum sensing and fundamental physics.

TOPICS

Levitated optomechanics, levitated magnetomechanics, levitated micro and nanosensors, hybrid quantum systems, spin-mechanics, search for dark matter or modified gravity or new physics beyond the standard model, fundamental science in space.

SPEAKERS

Felix **Ahrens** (CNR-IFN, Trento) - Markus **Aspelmeyer** (Wien University) -

Yehuda **Band** (Ben Gurion University) - Matteo **Carlesso** (Trieste University) -

Andrejs **Cebers** (Latvia University) - Derek **Jackson-Kimball** (California State University East Bay) -

Ron **Folman** (Ben Gurion University) - Mark **Freeman** (Alberta University) -

Tim **Fuchs** (Leiden University) - Alexander **Heidt** (Hannover University) -

Gerard **Higgins** (Chalmers University) - Francesco **Marin** (Firenze University) -

Nadine **Meyer** (ETH Zurich) - James **Millen** (King's College London) - David **Moore** (Yale University) - Tracy **Northup** (Innsbruck University) - Lukas **Novotny** (ETH Zurich) -

Mauro **Paternostro** (Queen's University Belfast) - Maxime **Perdriat** (ENS Paris) -

Martin **Plenio** (Ulm University) - Martino **Poggio** (Basel University) -

Antonio **Pontin** (University College London) - Oriol **Romero-Isart** (Innsbruck University) -

DaLi **Schaefer** (Harvard University) - Ben **Stickler** (Duisburg-Essen University) -

Chris **Timberlake** (Southampton University) - Marko **Toros** (Glasgow University) -

Jason **Twamley** (Okinawa Institute of Science & Technology) - Christian **Vogt** (Bremen University) -

- Tao **Wang** (IMRE Singapore) - Bill **Weber** (Trento University) - Wei **Ji** (Mainz University)

Director of 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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