



**ICTP
SAIFR**

International Centre
for Theoretical Physics
South American Institute
for Fundamental Research



INSTITUTO
PRINCIPIA

WORKSHOP ON LOW DIMENSIONAL QUANTUM GASES

March 19-22, 2023

at Principia Institute, São Paulo, Brazil

CONFIRMED SPEAKERS

Sadhan Adhikari (IFT-UNESP, Sao Paulo, Brazil)

Vanderlei Bagnato (IFSC Sao Carlos, Brazil)

Jordi Boronat (UPC-Barcelona, Spain)

Monica Garacanhas (IFSC Sao Carlos, Brazil)

Patricia Castilho (IFSC Sao Carlos, Brazil)

Lauriane Chomaz (University of Heidelberg, Germany)

Tobias Frederico (ITA-Sao Jose dos Campos, Brazil)

Emanuel Henn (IFSC Sao Carlos, Brazil)

Randy Hulet (Rice University, Houston, USA)

Nathan Lundblad (Bates College, Maine, USA)

Tommaso Macri (UFRN, Natal, Brazil)

Antonio Piza (IFUSP, Sao Paulo, Brazil)

Nick Proukakis (New Castle University, UK)

Francisco dos Santos (UFSCar, Sao Carlos, Brazil)

Julian Schmitt (University of Bonn, Germany)

Marzena Szymanska (University College London, UK)

Lauro Tomio (IFT-UNESP, Sao Paulo, Brazil)

Silvio Vitiello (UNICAMP, Campinas, Brazil)

Originally, this workshop was led by the late Prof. Mahir Hussein who organized alternating workshops on Nuclear Physics and on Ultracold Atoms and Chaos. Pursuing his ideals, the upcoming São Paulo Workshop deals with Ultracold Atoms. Since the realization of experiments with ultracold atoms in the 90's, a new field has emerged with themes like atomic Bose-Einstein condensation, BEC-BCS crossover with fermionic atoms, and quantum phase transitions, for instance, with atoms in optical lattices, quantum fluids, nonlinear waves in quantum fluids, etc. In recent years, attention has focused on these systems in constrained geometries, as exemplified most prominently by the recent bubble trap experiments in the Cold Atom Laboratory of the International Space Station. For these reasons, we have decided to focus this workshop on low-dimensional quantum gas physics.

In addition to the invited talks there will be space for contributing posters that will be displayed during the coffee breaks.

This activity will be preceded by the "School on Light and Cold Atoms". Candidates may apply either for one or both activities.

There is no registration fee.

**Registration deadline for those who also apply to
School on Light and Cold Atoms:**

December 25, 2022

Registration deadline for all others:

February 1, 2023

Online registration and more information:

<https://www.ictp-saifr.org/ldqg2023/>



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