Conference Program

Updated on May 17, 2025

Monday, June 2

15:00 – Registration

17:30 – 20:00 Welcome Reception

Tuesday, June 3

08:30 – Opening Session

09:00 – 10:30

Chair: Marilù Chiofalo

- E. Cornell (JILA and University of Colorado, US) – Bose-Einstein Condensation: Exactly as I planned and not at all as I thought
- D. DeMille (University of Chicago, US) – Searches for new CP-violating physics using cold and ultracold molecules
- T. Mehlstäubler (PTB and Leibniz Universität Hannover, DE) – Precision Spectroscopy in Ion Coulomb Crystals and Search for New Physics

10:30 – Coffee Break

11:00 – 12:30

Chair: Ernst Rasel

- H. Müller (UC Berkeley, US) – Cavity-based, lattice-hold atom interferometry as a new tool for precision measurement and inertial sensing
- M.-S. Zhan (CAS Wuhan/Hefei, CN) – Cold atom interferometry in space
- M. Arndt (University of Vienna, AT) – From Schrödinger kittens to UV spectroscopy

14:00 – 15:30 – Poster Session 1

Chair: Stefania Gravina

16:00 – 18:00

Chair: Livio Gianfrani

- N. Picqué (Humboldt University, DE) – Frequency comb interferometry
- D. Lisak (Nicolaus Copernicus University, PL) – High-accuracy molecular spectroscopy exploiting resonant frequencies of an optical cavity

- Hot Topics:

- D. Aude Craik (ETH Zürich, CH) – Searching for new physics by measuring isotope shifts and parity violation in trapped ions
- E. Bohr (JILA and University of Colorado, US) – Observation of three and four-body interactions between momentum states in a high-finesse cavity
- N. Bouloufa-Maafa (Université Paris-Saclay, CNRS, FR) – Ionization threshold of Rb_2 molecule measured by the electric field-dependent Rydberg-state spectroscopy

🍋 Wednesday, June 4

09:00 – 10:30

Chair: Anne Curtis

- J. Ye (JILA and University of Colorado, US) – Scaling quantum systems for clock and fundamental physics
- E. Peik (PTB Braunschweig, DE) – Nuclear laser spectroscopy of the 8.4 eV transition in Th-229
- K. Eikema (Vrije Universiteit Amsterdam, NL) – Alpha and helion particle charge radius difference determination with quantum-degenerate helium

10:30 – Coffee Break

11:00 – 12:30

Chair: Guglielmo Tino

- J. Hangst (Aarhus University, DK) – Spectroscopy of Antihydrogen: The ALPHA experiment at CERN
- K. Yoshioka (University of Tokyo, JP) – Laser cooling of positronium with a chirped laser pulse train
- F. Merkt (ETH Zürich, CH) – Precision spectroscopy of few-body atoms and molecules

14:00 – 15:30 – Poster Session 2

Chair: Ludovica Donati

16:00 – 18:00

Chair: Paolo De Natale

- P. Senellart-Mardon (CNRS, FR) – Revisiting and exploiting spontaneous emission with solid-state artificial atoms
- S. Franke-Arnold (University of Glasgow, UK) – Polarisation textures of light and atoms

- Hot Topics:

- U. Rapol (Indian Institute of Science, Education and Research, Pune, IN) – Investigating Quantum Diffusion and Localization in Atom-Optics Kicked Rotor Systems
- C. Politi (ETH Zürich, CH) – Two-photon cooling of calcium atoms
- S. Wright (Fritz Haber Institute of the Max Planck Society, DE)– Magneto-optical trapping of aluminium monofluoride

🍌 Thursday, June 5

09:00 – 10:30

Chair: Massimo Inguscio

- W. Ketterle (MIT, US) – How one, two and many atoms scatter light
- C. Koch (Freie Universität Berlin, DE) – Quantum resonances in cold collisions
- S. Will (Columbia University, US) – Bose-Einstein condensation of dipolar molecules

10:30 – Coffee Break

11:00 – 12:30

Chair: Kalle-Antti Suominen

- S. Cornish (Durham University, UK) – Dipolar interactions between ultracold RbCs molecules in magic-wavelength traps and optical tweezers

- L. Cheuk (Princeton University, US) – Quantum Many-Body Physics with Molecular Tweezer Arrays: From Magnon Dynamics to Spin-Squeezing

- F. Martin (Universidad Autónoma de Madrid, ES) – Attosecond molecular science

14:00 – Excursion (Optional)

🍍 Friday, June 6

09:00 – 10:30

Chair: David Hutchinson

- D. Wineland (University of Oregon, US) – Quantum Computers and Raising Schrödinger's Cat
- Safavi-Naini (University of Amsterdam, NL) – TBD
- M. Rey (University of Colorado, US) – New frontiers in quantum simulation and sensing via photon mediated interactions

10:30 – Coffee Break

11:00 – 12:30

Chair: Jakob Reichel

- S. Nascimbene (Sorbonne University, Paris, FR) – Exploring quantum Hall physics with ultracold dysprosium atoms
- Y. Xingcan (University of Science and Technology of China, Hefei, CN) – Correlations in homogeneous fermionic Hubbard gases: Coherence and Magnetism
- G. Roati (National Institute of Optics, CNR, Firenze, IT) – Vortex dynamics in strongly interacting Fermi superfluids

14:00 – 15:30 – Poster Session 3

Chair: Leonardo Salvi

16:00 – 18:00

Chair: Francesco Cataliotti

- B. Zhao (University of Science and Technology of China, Hefei, CN) – Creation of ultracold triatomic molecules

- Hot Topics:

- L. Cacciapuoti (European Space Agency, ESTEC, NL) – ACES is ready for launch!
- K. van Druten (University of Amsterdam, NL) – Measurement of the g factor of ground-state ^{87}Sr at the parts-per-million level using co-trapped ultracold atoms
- L. Hollberg (Stanford University, US) – Dynamic Imaging Magnetic Fields with Yb Fluorescence

Closing Session

🍎 Saturday, June 7

Departure / Firenze Lab Visit (Optional)