

Poster Session 1, Monday, 4 September, 19:30 h (CEST)

Bruno Fernando Abreu de Melo	Single Nanoparticle Control on a Chip: Trapping, Detection, and Cooling
Seyed Khalil Alavi	Quantum Levitodynamics with a Photonic Crystal Nanocavity
James Bateman	Backaction Suppression in Levitated Optomechanics
Ines Ben Yedder	Optical Levitation of Nanoparticle in Engineered Non-linear Potentials
Alexander Bott	Light-matter Interaction with Single-photon Transitions for Sensing Beyond the Standard Model
Igor Brandao	Magnetically Levitated mm-Sized Helium-3 Spheres as an Optomechanical Platform for Free Quantum Rotations
Quentin Deplano	Towards Molecular Entanglement Control
Alrik Durand	Toward Spin-mechanical Coupling in Levitating 2D Material
Matteo Fadel	Macroscopic Quantum Test with Bulk Acoustic Wave Resonators
Jonathan Gosling	Novel Quantum Levitated Sensors for Directional Dark Matter Detection
Alexey Grinin	High Mass Matter-Wave Interference and Submicron Gravity Tests with Levitated Nanospheres
Thiago Guerreiro	Quantum Optomechanics of Gravitational Waves

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Bas Hensen	On-chip Diamagnetic Levitation and Cooling for Gravity Mediated Entanglement
Jack Homans	Demonstrating Optical and Magnetic Levitation in Space
Sungkun Hong	Hybrid Optomechanical Systems Consisting of Optically Levitated Nanoparticles and Silica Microtoroid Optical Cavity
Yanhui Hu	Structured Transverse Orbital Angular Momentum Probed by a Levitated Optomechanical Sensor
Cyril Laplane	Towards Absolute Cooling in Levitodynamics Using Optically Active Nanocrystals
Monika Leibscher	Controllability of Driven Quantum Rotors: A Graph-theoretical Approach
Stefan Lindner	Hollow-core Fiber Loading of Optically Levitated Nanoparticles into Ultra-high Vacuum
Vojtěch Liška	Cold Damping of Levitated Optically Coupled Nanoparticles
Lukas Martinetz	Surface-induced Decoherence and Heating of Charged Particles
Miriam Martínez Flórez	Cooling of Particles with Internal Degrees of Freedom