



Exploring nonclassical states of center-of-mass mechanical motion with superconducting magneto- and levitomechanics

Results

Project Information

SuperMeQ

Grant agreement ID: 101080143

DOI

[10.3030/101080143](https://doi.org/10.3030/101080143)

EC signature date

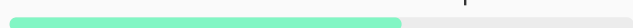
18 August 2022

Start date

1 October 2022

End date

30 September 2026



Funded under

Digital, Industry and Space

Total cost

€ 2 988 644,00


EU contribution

€ 2 988 644,00

Investment in EU policy priorities

Digital agenda	<input checked="" type="radio"/>	Clean air	<input type="radio"/>
Artificial Intelligence	<input type="radio"/>	Climate action	<input type="radio"/>
Biodiversity	<input type="radio"/>		

Coordinated by

CHALMERS TEKNISKA
HOGSKOLA AB
 Sweden

CORDIS provides links to public deliverables and publications of HORIZON projects.

Links to deliverables and publications from FP7 projects, as well as links to some specific result types such as dataset and software, are dynamically retrieved from OpenAIRE [↗](#).

Deliverables

Documents, reports (3) ▼

[First report on work package progress and milestone M4.1](#) [↗](#)

[DEC plan](#) [↗](#)

Dissemination, communication and exploitation plan

[First Report on work package progress and milestone M3.1](#) [↗](#)

First Report on work package progress and milestone M3.1 (month 12)

Data Management Plan (1) ▼

[Data management plan](#) [↗](#)

Websites, patent filings, videos etc. (1) ▼

[Website](#) [↗](#)

Website available via internet

Publications

Peer reviewed articles (4) ▼

[High-Q magnetic levitation and control of superconducting microspheres at millikelvin temperatures](#) [↗](#)

Author(s): Hofer, J.; Gross, R.; Higgins, G.; Huebl, H.; Kieler, O. F.; Kleiner, R.; Koelle, D.; Schmidt, P.; Slater, J. A.; Trupke, M.; Uhl, K.; Weimann, T.; Wieczorek, W.; Aspelmeyer, M.

Published in: Physical Review Letters, Issue 131, 043603 (2023), 2023, ISSN

1079-7114

Publisher: APS

DOI: 10.48550/arxiv.2211.06289


[Kerr Enhanced Backaction Cooling in Magnetomechanics](#) 

Author(s): D. Zoepfl; M. L. Juan; N. Diaz-Naufal; C. M. F. Schneider; L. F. Deeg; A. Sharafiev; A. Metelmann; G. Kirchmair

Published in: Phys. Rev. Lett., Issue 130, 033601 (2023), 2023, ISSN 1079-7114

Publisher: APS

DOI: 10.48550/arXiv.2202.13228

[Superconducting Microsphere Magnetically Levitated in an Anharmonic Potential with Integrated Magnetic Readout](#) 

Author(s): Martí Gutierrez Latorre; Gerard Higgins; Achintya Paradkar; Thilo Bauch; Witlef Wieczorek

Published in: Physical Review Applied, Issue 19, 054047 (2023), 2023, ISSN 1079-7114

Publisher: ASP

DOI: 10.48550/arxiv.2210.13451

[Surface acoustic wave resonators on thin film piezoelectric substrates in the quantum regime](#) 

Author(s): Thomas Luschmann; Alexander Jung; Stephan Geprägs; Franz X Haslbeck; Achim Marx; Stefan Filipp; Simon Gröblacher; Rudolf Gross; Hans Huebl

Published in: Materials for Quantum Technology, Issue Vol 3, Iss 2, p 021001 (2023), 2023, ISSN 2633-4356

Publisher: IOP

DOI: 10.48550/arxiv.2301.11213

Other (1)

[Remote sensing of a levitated superconductor with a flux-tunable microwave cavity](#) 

Author(s): Philip Schmidt, Remi Claessen, Gerard Higgins, Joachim Hofer, Jannek J. Hansen, Peter Asenbaum, Kevin Uhl, Reinhold Kleiner, Rudolf Gross, Hans Huebl, Michael Trupke, Markus Aspelmeyer

Published in: arXiv preprint, Issue 2401.08854, 2024, ISSN 2331-8422

Publisher: arXiv

DOI: 10.48550/arXiv.2401.08854

Last update: 6 September 2024

Permalink: <https://cordis.europa.eu/project/id/101080143/results>

European Union, 2025

