

Dr. Lucas Clemente

[View at clemente.io](#)

Hi! I'm Lucas, based in Munich, Germany, and currently looking for interesting projects.

since 2014

Side projects

[Go](#) [Ember.js](#)

[git-cr](#)

Client-side encryption for git that also keeps your repo's metadata secure.

[goldfish](#)

A personal wiki / notes blend powered by markdown and git.

[api2go](#)

A JSONAPI Implementation for Go.

since 08/2012

Co-founder

[C++11](#) [Rails](#) [Go](#) [Ember.js](#)

[univedo GmbH](#)

I co-founded univedo, where we develop a novel solution for the integration of business data and processes.

10/2011 – 02/2016

PhD Student (thesis)

[Mathematica](#) [Python](#)

[Theory group](#), Max-Planck-Institute of Quantum Optics

In the quantum information theory group of Prof. Ignacio Cirac, I worked on quantum foundations, in particular conditions for quantum violations of classical behavior in macroscopic systems. Before, I worked in the field of quantum magnetomechanics, where we proposed experimental setups using the magnetic properties of superconductors to observe quantum behavior on massive objects. I obtained my PhD from LMU Munich in January 2016 with high honors.

During my time at MPQ I gave several seminars, the slides can be found here:

- [Seminar on Macrorealism \(Source\)](#)
- [Seminar on inflation \(Source\)](#)
- [Seminar on macroscopicity measures \(Source\)](#)

06/2007 – 10/2011

Various Student Research Assistantships

[C++](#) [Mathematica](#)

[Theory group](#), Max-Planck-Institute of Quantum Optics

[Computational radiation physics](#) Helmholtz Zentrum Dresden Rossendorf

[FEL group](#), Cluster of Excellence "Munich Advanced Photonics"

[Medical physics](#), Maier-Leibnitz-Laboratorium Munich

10/2009 – 10/2010

B. Sc. in physics (thesis)

LMU Munich

After early studies in computer science (at TUM) and physics (at LMU Munich), I completed my Bachelor's degree at LMU.

09/1999 – 06/2009

Abitur (thesis)

[C++](#)

Maria-Theresia-Gymnasium

During school I skipped the 1st, 8th and 10th grade, studied computer science and physics and worked as student research assistant at three different institutes. For my final thesis I received the thesis prize of the German Physical Society.

Contact

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📄 [lucas-clemente](#)

Personal

🏠 14/01/1993, Munich, Germany

☕ Coffee, Mate

🔧 Space-nerd

🖨 3d-printing ([1](#), [2](#), [3](#))

🔦 [Chaos Computer Club](#)

💖 Running, [Scuba diving](#)

🎵 [Mostly electronic](#)

Publications

📄 L. Clemente, J. Kofler, No Fine theorem for macrorealism: Retiring the Leggett-Garg inequality, [arXiv:1509.00348](#)

📄 L. Clemente, J. Kofler, Necessary and sufficient conditions for macroscopic realism from quantum mechanics, [arXiv:1501.07517](#), *Phys. Rev. A* **91**, 062103 (2015)

📷 L. Clemente, J. Kofler, [Poster at Qupon 2015, Vienna, Austria](#)

📷 L. Clemente, J. Kofler, [Poster at 554. WE-Heraeus-Seminar "Quantum Contextuality, Non-Locality and the Foundations of Quantum Mechanics" 2014, Bad Honnef, Germany](#)

📄 W. Assmann, R. Becker, H. Otto, M. Bader, L. Clemente, S. Reinhardt, C. Schäfer, J. Schirra, S. Uschold, A. Weizmüller, R. Sroka, ³²P-haltige Folien als Implantate für die LDR-Brachytherapie gutartiger Stenosen in der Urologie und Gastroenterologie, *Zeit. Med. Phys.* **23**, 21 (2013)

📷 L. Clemente, C. Navau, A. Sanchez, J. I. Cirac, O. Romero-Isart, [Poster at GRC "Mechanical Systems in the Quantum Regime" 2012, Galveston, TX, USA](#)

📄 O. Romero-Isart, L. Clemente, C. Navau, A. Sanchez, J. I. Cirac, Quantum Magnetomechanics with Levitating Superconducting Microspheres, [arXiv:1112.5609](#), *Phys. Rev. Lett.* **109**, 147205 (2012)

📄 F. Pastawski, L. Clemente, I. Cirac, Quantum memories based on engineered dissipation, [arXiv:1010.2901](#), *Phys. Rev. A* **83**, 012304 (2011)

📷 C. Hoeschen, H. Schlattl, M. Zankl, T. Seggebrock, L. Clemente, F. Grün, Simulating mammographic absorption imaging and its radiation protection properties, [World Congress on Medical Physics and Biomedical Engineering, 2009, Munich, Germany](#)

👤 L. Clemente, Integrating Tracking and Beam-Matter Interaction for Beam Line Design, Talk at ENLITE 09, Dresden, Germany