

# Lucas Clemente

10/2011 – present	<b>PhD Student</b> Max-Planck-Institute of Quantum Optics & LMU Munich  In the Quantum Information Theory group of Prof. Ignacio Cirac, I co-pioneered the field of Quantum Magnetomechanics. We proposed experimental setups using the magnetic properties of superconductors to observe quantum behavior on massive objects. Currently I am working on quantum foundations and macrorealism.
10/2009 – 10/2011	<b>Student Research Assistant</b> Max-Planck-Institute of Quantum Optics
10/2009 – 10/2010	<b>B.Sc. in physics</b> LMU Munich
07/2008 – 10/2009	<b>Student Research Assistant</b> Forschungszentrum Dresden-Rossendorf — Plasma Theory
06/2008 – 09/2009	<b>Student Research Assistant</b> Cluster of Excellence "Munich Advanced Photonics"
10/2007 – 10/2009	<b>Early studies in computer science &amp; physics</b> TUM / LMU Munich
06/2007 – 05/2008	<b>Student Research Assistant</b> Maier-Leibnitz-Laboratorium Munich — Simulated Medical Physics
09/1999 – 06/2009	<b>Abitur</b> Elementary School & 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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## Personal

Birthday  
14/01/1993, Munich, Germany

Interests  
Technology, Mathematical Physics,  
Quantum Information, Economics, Music  
(Piano), Jogging

Organizations  
[German National Academic Foundation](#)  
("Studienstiftung"), [Chaos Computer Club](#), [German Physical Society](#)

## Publications

- 📄 L. Clemente, J. Kofler: Necessary and sufficient conditions for macroscopic realism from quantum mechanics, [arxiv:1501.07517](#), [PRA 91, 062103 \(2015\)](#)
- 🖼️ L. Clemente, K. Kofler: Poster at Qupon 2015, Vienna, Austria
- 🖼️ L. Clemente, *et al.*: Poster at 554. WE-Heraeus-Seminar "Quantum Contextuality, Non-Locality and the Foundations of Quantum Mechanics" 2014, Bad Honnef, Germany
- 🖼️ L. Clemente, *et al.*: 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](#), [PRL 109, 147205 \(2012\)](#)
- 📄 F. Pastawski, L. Clemente, I. Cirac: Quantum memories based on engineered dissipation, [arXiv:1010.2901](#), [PRA 83, 012304 \(2011\)](#)
- 🖼️ C. Hoeschen, H. Schlattl, M. Zankl, T. Seggebrock, L. Clemente, F. Grüner: Simulating mammographic absorption imaging and its radiation protection properties, World Congress 2009 — Medical Physics and biomedical engineering
- 👤 L. Clemente: Integrating Tracking and Beam-Matter Interaction for Beam Line Design, Dresden ENLITE 09