Dr. Lucas Clemente

since 2014

Side projects `Go` `Ember.js`

quic-go

A Go implementation of the novel QUIC protocol (a proposed replacement for TCP+TLS and parts of HTTP/2). quic-go powers QUIC support in the Caddy server. A demo page is available at quic.clemente.io.

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 managing business data. Univedo uses a community-driven schema to integrate data between different apps and enables the simplification of complex business processes. Our platform is the basis for the industrial automation system evomecs.

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 behavior in macroscopic systems. Some of our results were covered by phys.org. Earlier, I worked in the field of quantum magnetomechanics, where we proposed experimental setups using superconductors to observe quantum behavior of 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++` `Mathemtica`

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
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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: Limitations of the Leggett-Garg Inequality, arXiv:1509.00348, Phys. Rev. Lett. 116, 150401 (2016)

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, ^{32}P-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. Grüner, 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