

Luca Parisi

Curriculum Vitae

Personal information

Name Luca
Surname Parisi
Birthdate 27/05/1991
email luca.parsi91@gmail.com

Education

- 2015-2019 **P.h.D. in Physics**, University of Trento, Italy.
Mark: Excellent cum laude
Thesis: *Mixtures of Bose gases in one dimension: a Quantum Monte Carlo study*,
Supervisors: Prof. S. Giorgini
- 2013-2015 **M.sc. in Physics**, Focus on Condensed Matter, University of Catania, Italy.
Mark: 110/110 cum laude
Thesis: *Kinetic simulations and transport of hydrogenated graphene*,
Supervisors: Prof. G.G.N Angilella & Dr. A. La Magna
- 2010-2013 **B.sc. in Physics**, University of Catania, Italy.
Mark: 110/110 cum laude
Thesis: *Electromagnetically Induced Transparency*
Supervisors: Prof. G. Piccitto

Experience

- 2019-current **Post-doc**, INO-CNR, Trento.
Investigation of fermionic mixtures
- february 2018 **Internship**, *Universitat Politècnica de Catalunya*, Barcelona, Barcelona Quantum Monte Carlo group.
I worked on quantum droplets .
- october 2014 **Internship**, *Institute of Atomic and Molecular Physics*, Queen's University of Belfast, Quantum Technology group.
I worked with Prof. Paternostro on macroscopicity measures of Schrodinger cat-like states

Awards

- 2010-2015 E.R.S.U scholarship for university studies

2014 Scholarship for a foreign internship within the project *Messageri della Conoscenza*

Publications

Quantum droplets in one-dimensional Bose mixtures: a quantum Monte-Carlo study , L. Parisi, S. Giorgini, arXiv:2003.05231

The liquid state of one-dimensional Bose mixtures: a quantum Monte-Carlo study , L. Parisi, G. E. Astrakharchik, S. Giorgini, Phys. Rev. Lett. 122, 105302 (2019)

Spin dynamics and Andreev-Bashkin effect in mixtures of one-dimensional Bose gases, Luca Parisi, G. E. Astrakharchik, Stefano Giorgini, Phys. Rev. Lett. 121, 025302 (2018)

Quantum Monte-Carlo study of the Bose polaron problem in a one-dimensional gas with contact interactions, Luca Parisi, Stefano Giorgini, Phys. Rev. A 95, 023619 (2017)

L. Parisi, R. Di Giugno, I. Deretzis, G.G.N. Angilella, A. La Magna, Kinetic Monte Carlo simulations of vacancy evolution in graphene, Materials Science in Semiconductor Processing 42, 179 - 182 (2016)

Conferences and schools

31/08 - 3/09, 2016 BEC 2016, Salerno(IT), poster presentation, Trieste (IT)

3/07 - 7/07, 2017 Workshop on Understanding Quantum Phenomena with Path Integrals: From Chemical Systems to Quantum fluids and Solids, poster presentation, Trieste (IT)

19/09 - 23/09, 2018 S/HPC school 2018, Trento

Computer skills

Advanced C/C++, Python, openMP, MPI

Intermediate Fortran, \LaTeX , Linux, Mathematica

Languages

Native Italian, French

Intermediate English