

Juan Jose Rodriguez-Aldavero

PhD student at QUINFOG (IFF-CSIC)

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📁 Group site at QUINFOG

Interests:

Quantum computing, tensor networks, quantum-inspired numerical methods

Work Experience

- May 2023 - **Researcher**, Quantum Information and Foundations Group (QUINFOG), Institute of Fundamental Physics, Spanish National Research Council (IFF-CSIC).
Present Working on the development and characterization of quantum-inspired numerical methods and algorithms based on tensor networks.
- Sep. 2019 - **Consultant**, Management Solutions.
Sep. 2020 Worked on various technology projects for Spanish companies in the energy sector.

Education

- Oct. 2023 - **Ph.D. in Physics**, Complutense University of Madrid.
Present Carrying out a thesis in quantum-inspired numerical methods.
- Sep. 2020 - **Master's in Theoretical Physics**, Utrecht University.
Mar. 2023 *Master thesis*: Study of the phase diagram of an extended chain of parafermions.
- Sep. 2019 - **Master's in Computational Engineering**, Rovira i Virgili University.
Sep. 2021 *Master thesis*: Modeling gravitational fields using the finite element method.
- Sep. 2015 - **Bachelor's in Physics**, *Fundamental Physics*, Complutense University of Madrid.
Jun. 2019 *Bachelor thesis*: Dynamics of open quantum systems using the Feynman and Vernon formalism.

Courses

- Sep. 2023 **Introductory Course to Tensor Networks**, *One-week school*, organized by the Galician Institute of High Energy Physics (IFGAE) and the Supercomputing Center of Galicia (CESGA).
- Mar. 2018 **XV Introduction to Research in Matter Structure Course**, *Three-day course*, organized by the Institute of Matter Structure (IEM-CSIC).

Skills

Operating Systems: Linux, Windows.
Scientific Software: Mathematica, MATLAB.
Programming Languages: Python, R, SQL.
Office Software: L^AT_EX, Microsoft Office.
Languages: Spanish (native), English (C1).

Other Interests

- From 2016 **Pianist**, ProArte Philharmonic Orchestra.
- 2005 - 2017 **Piano Lessons**, Municipal School of Villaviciosa de Odón and Móstoles Conservatory.