



## Research fields

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Quantum information, tensor network states, quantum inspired methods, quantum computation.

## Education

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- Sept. 2019 - Sept. 2020 **MSc. Quantum Science and Technology**, Universidad del País Vasco, 60 ECTS.  
*Thesis*: Noise in Digital and Digital-Analog Quantum Computation.
- Sept. 2015 - July 2019 **BSc. Physics**, Universidad de Córdoba, 240 ECTS.  
*Thesis*: Introducción a la computación cuántica: Implementación básica y aplicaciones (Introduction to quantum computation: Basic implementation and applications).

## Grants and scholarships

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- Sept. 2020 - Now **FPU scholarship**, Ministerio de Ciencia, Innovación y Universidades.  
*Thesis*: Métodos cuánticos para análisis numérico (Quantum methods for numerical analysis).
- Sept. 2019 - Sept. 2020 **Scholarship for the realization of a MSc. In the UPV/EHU**, Universidad del País Vasco.  
Financial aid for the realization of a MSc. which is awarded based on the academic record.
- Nov. 2018 - July 2019 **Beca de colaboración**, Ministerio de Educación y Formación profesional.  
*Project*: Introducción a la computación cuántica: Implementación básica y aplicaciones (Introduction to quantum computation: Basic implementation and applications).
- July. 2018 **UCOGlobal SUMMER scholarship**, Universidad de Córdoba.  
Scholarship to assist to the “International summer academy in engineering for women (ISAEW4)” at the University of Applied Sciences FHOÖ UPPER AUSTRIA (WELS, AUSTRIA).
- July. 2014 **PAD (Pädagogischer Austauschdienst) scholarship**, Pädagogischer Austauschdienst.  
Scholarship granted by the German Government due to the excellence in the academic records for a month-long stay to enhance the knowledge of the German language and its culture, together with the socialization with multicultural groups formed by students of different nationalities.
- August 2012 **Programa “Recuperación y utilización educativa de pueblos abandonados”**, Ministerio de Educación y Formación Profesional.  
Scholarship granted due to the excellence in the academic records for the rehabilitation of abandoned towns promoting the respect of the environment and the social harmony.

## Awards

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- Dec. 2019 **Honourable mention “Deep in Quantum” in Bilbao’s Quantum Computing Hackathon**, Innolab, UPV/EHU, IBM.  
Honourable mention in the category “Deep in Quantum” in Bilbao’s Quantum Computing Hackathon for the project Quantum Artificial Life.
- Dec. 2019 **Premio Extraordinario de Fin de Grado**, Universidad de Córdoba.  
Award to the best academic record of the class of 2019 of the Physics Degree at the University of Córdoba.
- April 2019 **Concurso “Mi física favorita”**, Universidad de Córdoba.  
Initiative of the group FQM-378 funded by “Plan Propio de Investigación de la Universidad de Córdoba” to draw attention to the role of the women in the development of important advances in Physics.

## Courses

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- 30 Nov. – 4 Dec. 2020 **“IBM Quantum Teach-The-Researcher”**, Quantum Machine Learning: Classification.
- 7-25 July 2018 **“International summer academy in engineering for women (ISAEW4)”**, University of Applied Sciences FHOÖ UPPER AUSTRIA (WELS, AUSTRIA).

## Seminars and conferences

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11 May 2021 “**Quantum Information in Spain ICE 6**”, Solving partial differential equations in quantum computers.

## Publications

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P. García-Molina, J. Rodríguez-Mediavilla, and J. J. García-Ripoll. Solving partial differential equations in quantum computers, [arXiv:2104.02668](https://arxiv.org/abs/2104.02668) [quant-ph] (2021).

## Skills

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**Operating Systems:** Windows, Linux.

**Programming languages:** Python, Matlab, Fortran90.

**Office Software:** Latex, Microsoft Office, LibreOffice.

**Languages:** Spanish (mother tongue), English (advanced), German (intermediate), Chinese (elementary).

**Oral skills:** Debate.

## Certificates

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Certificate in Advanced English (CAE).

Goethe-Zertifikat B2.

Hanyu Shuiping Kaoshi (HSK) 2.

## Scientific dissemination

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April 2018, **Paseo por la ciencia**, Asociación Profesorado de Córdoba por la Cultura Científica (APCCC).

April 2019 Activity to promote the scientific dissemination in the city of Córdoba by means of accessible experiments and explanations provided by students of different levels.

## Other Interests

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Basketball playing (2002-2019).