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Guillermo F. Peñas Fernández

WORK EXPERIENCE

Self-employed – *Writer*

JANUARY 2019–CURRENT

- Author, together with my partner David Perezagua, of the following two science dissemination books.
 - *Cartas a los príncipes y princesas del siglo XXI*. Editorial: Libros.com. (Currently in layout process).
 - *Viaje a través de la física en 30 ecuaciones*. Editorial: Ábaco. (Currently in process of editing).

Darío Estudio – *Mathematics teacher*

JANUARY 2018–CURRENT

- Teaching groups of 30 foreign students in order to prepare them for the mathematics admission exam of the spanish university system.
- Managing the groups and helping the students out with bureaucracy as well as with the cultural barrier. The last point involving usually teaching in several languages simultaneously.

Radio Nacional de España (RNE) – *Scientific collaborator*

JUNE 2019–SEPTEMBER 2019

- Creator and participant of the scientific radio show *Radio al Cuadrado*, in which we explained scientific concepts to an audience of around a quarter of a million people.

Escuelab innovación educativa – *Scientific dynamizer*

JUNE 2018–CURRENT

- Employee of this company whose aim is to make science more accessible to kids, always with a strong social perspective.

Science Road Journal – *Writer*

JANUARY 2018–JUNE 2019

- Creator of the project *Science Road*, a journal for scientific dissemination consisting on a single letter delivered monthly.
- Each month, my partner and myself would write an article regarding some interesting scientific fact and would take care of all the logistics necessary for the printing and delivery.

Science Road Project – Lecturer

APRIL 2016– CURRENT

- Creator, together with other three friends, of this project which consists on a mixture of talks and workshops aimed to explain and bring closer scientific knowledge to the broad public.
- Over the last four years, this activity has taken place in several summer camps, high schools and public spaces.

CEEF Academy – Science teacher

SEPTEMBER 2015–SEPTEMBER 2016

- Teacher of mathematics, physics, chemistry and technology of students of secondary school and first year of university.

OTHER WORK EXPERIENCE

Besides what has already been highlighted, I have done several other activities, both in Spain and abroad.

- In 2014 I worked as a Salesman for the energy company *Gas Natural* (Spain).
- In 2017 as a warehouse waiter for the *Furniture Company* (England).
- In 2017 as a crane operator in a bungee jump site for *Bungy Portugal* (Portugal).
- For several summers at different summer camps (Spain and Canada), with special dedication to *Campamento Peñas Blancas* (Spain).
- Private tutoring intermittently since 2010 (Spain and The Netherlands).

EDUCATION

Universidad Complutense de Madrid – Bachelor's degree in physics

SEPTEMBER 2012–SEPTEMBER 2016

GRADES: 7.12/10

THESIS TITLE: *Study of quantum fields by means of Unruh-Dewitt detectors.*

Universidad Complutense de Madrid – Master's degree in theoretical physics

SEPTEMBER 2018–JUNE 2019

GRADES: 9.2/10

THESIS TITLE: *Phase transition of an optical cavity in the presence of an off-resonance driving field.*

CONFERENCES AND TALKS

Universidad del País Vasco

SEPTEMBER 2019

Invited talk at the Quantum Computing and Quantum Technologies (QUTIS) center of the university of the Basque Country.

TITLE: *Phase transition of an optical cavity in the presence of an off-resonance driving field.*

Universidad Complutense de Madrid

FEBRUARY 2020

Invited talk at the Quantum Optics club of the Complutense university of Madrid.

TITLE: *Quantum optics ¿What is light? ¿What are the quantum limits on precision? ¿Could the noise become an advantage?*

LANGUAGES

- Spanish (Native)
- English (C1)
- Portuguese (C1)
- French (B2)

PROGRAMMING SKILLS

Advanced knowledge of *Python*, *Matlab* and *Latex*. Familiarity with the environments of both *Microsoft* and *Linux*.

VOLUNTEERINGS

CEPI Tetuán SPRING-SUMMER 2018

- Science teacher of children from families at risk of social exclusion at the immigrant integration center of Tetuán (a district of Madrid).

Workaway FALL 2017

- Help as carpenter, bricklayer and teacher in different communities in Peru, Bolivia and Argentina.

WWOOF SUMMER 2013

- Work on various organic farms in England and Scotland. Activity that I carried out both to learn about this type of crops (my father was switching from conventional to organic farming at the time), and to learn English.

LIST OF REFERENCES

- **Diego Porras Torre**, researcher at the Institute of Fundamental Physics (IFF) of the Spanish Research Council. **Contact:** d.porras@iff.csic.es
- **Alfredo Luis Aina**, professor of the Department of Optics, Faculty of Physics, Complutense university of Madrid. **Contact:** alluis@fis.ucm.es