

**CURRICULUM VITAE ABREVIADO (CVA)**

**IMPORTANT** – The Curriculum Vitae **cannot exceed 4 pages**. Instructions to fill this document are available in the website.

**Part A. PERSONAL INFORMATION**

|  |                     |                            |  |
|--|---------------------|----------------------------|--|
| First name                                     | Pérez-Cañellas      |                            |  |
| Family name                                    | Armando             |                            |  |
| Gender (*)                                     | Male                | Birth date<br>(dd/mm/yyyy) |  |
| Social Security,<br>Passport, ID number        |                     |                            |  |
| e-mail   | armando.perez@uv.es | URL Web                    |  |
| Open Researcher and Contributor ID (ORCID) (*) |                     | 0000-0002-6713-9483        |  |

(\*) *Mandatory*

**A.1. Current position**

|                   |  |                   |  |
|-------------------|--|-------------------|--|
| Position          | Full Professor   |                   |  |
| Initial date      |  |                   |  |
| Institution       | Universidad de Valencia  |                   |  |
| Department/Center | Física<br>Teórica  |                   |  |
| Country           | Spain  | Teleph.<br>number |  |
| Key words         | Quantum walks, open quantum systems, quantum machine learning, and noisy quantum computers |                   |  |

**Part B. CV SUMMARY** (*max. 5000 characters, including spaces*)

Participation or leading in 31 research projects. Fields of research (around 60 papers): relativistic nuclear plasmas, astroparticle physics and quantum information. Current research: quantum walks, open quantum systems, quantum machine learning, and noisy quantum computers.

Supervised PhD completed thesis: 5; two more PhD thesis in progress. 45 contributions to international workshops. Organization of international workshops: 7, plus 2 national workshops.

**Relevant publications**

- *Electromagnetic lattice gauge invariance in two-dimensional discrete-time quantum walks*. *Phys. Rev. A* 98, 032333 (2018). Iván Márquez-Martín, Pablo Arnault, Giuseppe Di Molfetta, and Armando Pérez. DOI 10.1103/PhysRevA.98.032333

- Dirac equation as a quantum walk over the honeycomb and triangular lattices. Pablo Arrighi, Giuseppe Di Molfetta, Iván Márquez-Martín, and Armando Pérez *Phys. Rev. A* 97, 062111 (2018), DOI:<https://doi.org/10.1103/PhysRevA.97.062111>



- Quantum walks as simulators of neutrino oscillations in a vacuum and matter. G Di Molfetta and A Pérez. *New J. Phys.* 18 103038 (2016), DOI: <https://doi.org/10.1088/1367-2630/18/10/103038>

- Asymptotic properties of the Dirac quantum cellular automaton. A. Pérez *Phys. Rev. A* 93, 012328 (2016), DOI: <https://doi.org/10.1103/PhysRevA.93.012328>

- *Fermion confinement via quantum walks in (2+1)-dimensional and (3+1)-dimensional space-time*. I. Márquez-Martín, G. Di Molfetta, y A. Pérez: *Phys. Rev. A* 95, 042112 (2017). DOI 10.1103/PhysRevA.95.042112

### Research projects

Grant number: PID2020-113334GB-I00

Title: Partículas Elementales: El Modelo Estándar y sus Extensiones

PI: Oscar Vives García y Sergio Palomares Ruiz

Agency: MCINN/AEI/10.13039/501100011033

Dates: 01/09/2021-31/08/2024

Grant number: OTR2021-22507COLAB

Title: ACUERDO DE AGRUPACION PARA COLABORAR  
EN EL DESARROLLO DEL PROYECTO QUANTUM SPAIN

PI: Armando Pérez Cañellas

Agency: MINECO

Dates: 01/01/2022-31/12/2025