Dr. José M. Pizarro

PhD in Physics

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Jose Pizarro Blanco

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PROFILE

I am Ph.D. in Physics with expertise in Computational Methods applied to Materials Science.

I have extensive experience in Software Development and Data Science. My programming skills include:

- High proficiency in Python, C, C++, Fortran, Linux, Git.
- Basic knowledge of JavaScript, React, HTML, CSS, Elasticsearch, MongoDB, and ReSTful API.
- I am currently learning ML methods, particularly Pytorch and TensorFlow.

I worked as a Postdoctoral Researcher and Software Developer for more than 5 years. I have had the opportunity to mentor others and work with collaborators from around the world, which has given me valuable experience.

LANGUAGES

Spanish ●●●●●
Native

English ●●●●○
High proficiency (C1)

German ●●○○○
Elementary proficiency (A2-B1)

Turkish ●○○○○
Basic knowledge (A1-A2)

PROFESSIONAL EXPERIENCE

08.2022 – present
Berlin, Germany

Software Developer and Data Management at the Consortium FAIRmat
Humboldt University of Berlin
Domain expert in the consortium FAIRmat.

11.2021 – 08.2022
Hamburg, Germany

Postdoctoral Research Associate
Max Planck Institute for the Structure and Dynamics of Matter
Collaborations with experimental groups for twisted heterostructures and mentoring of students in the research group.

11.2018 – 10.2021
Bremen, Germany

Postdoctoral Research Associate
University of Bremen
Implementing highly-optimized low-energy models for twisted heterostructures and mentoring of students in the research group.

EDUCATION

09.2015 – 05.2019
Madrid, Spain

PhD in Physics
Materials Science Institute of Madrid (CSIC)
PhD thesis: Electronic correlations in multiorbital systems.
Qualification: Cum Laude (maximum grade in the Spanish system).

09.2014 – 06.2015
Madrid, Spain

MSc in Nanophysics and Advanced Materials
University Complutense of Madrid
MSc thesis: Optoelectronic properties of zinc and strontium germanate nanostructures. Qualification: 9.5/10.

09.2010 – 06.2014
Valladolid, Spain

BSc in Physics
University of Valladolid
BSc thesis: Electronic shells in nanoparticles. Qualification: 10/10 (Outstanding).

REFERENCES

Prof. Dr. Tim O. Wehling, University of Hamburg, Germany
tim.wehling@physik.uni-hamburg.de, +49 40 42838 2916

Prof. Dr. Roser Valentí, Goethe University of Frankfurt am Main, Germany
valenti@itp.uni-frankfurt.de, +49 69 798 47816

Dr. Elena Bascones, Materials Science Institute of Madrid (CSIC), Spain
leni.bascones@icmm.csic.es, +34 91 3349041

PUBLICATIONS

06.2022

Doping fingerprints of spin and lattice fluctuations in moiré superlattice systems
Phys. Rev. B 105, L241109

11.2020

Deconfinement of Mott localized electrons into topological and spin-orbit coupled Dirac fermions
npj Quantum Materials 5, 79

10.2019

Internal screening and dielectric engineering in Magic-Angle Twisted Bilayer Graphene
Phys. Rev. B 100, 161102(R)

03.2019

The nature of correlations in the insulating states of twisted bilayer graphene
J. Phys. Commun. 3 035024

01.2019 **Strong electronic correlations and Fermi surface reconstruction in the quasi-one dimensional iron superconductor BaFe2S3**
Phys. Rev. Materials 3, 014801

02.2017 **Strong correlations and the search for high-Tc superconductivity in chromium pnictides and chalcogenides**
Phys. Rev. B 95, 075115