Mateo Rodríguez

· 01/03/2002 · 🌐 Oviedo, Spain · ✉ mateorsuarez@gmail.com · ▮ · More about me: 🌐 mateo.github.io ·

EDUCATION

UNIVERSITY OF OVIEDO 2020-2025

Bachelor of Science - Physics (240 ECTS)
Bachelor Thesis: *Connecting theory and experiment: study of molecules on surfaces trough STM and simulations.*

VCQ SUMMER SCHOOL: INTERFACING GRAVITY AND QUANTUM PHYSICS 09/2024

25.5h course, organized by Vienna Center for Quantum Science and Technology. Certificate Link

DUTCH SUMMER SCHOOL OF THEORETICAL PHYSICS 08/2024

1.5 ECTS course on Theoretical Physics.
Utrecht Summer School. Certificate Link

XII GEFENOL SUMMER SCHOOL ON STATISTICAL PHYSICS OF COMPLEX SYSTEMS 07/2024

International 60h course on Complex Systems, applied Artificial Intelligence (AI) and Data Modeling. URJC Madrid. Certificate Link

SATURDAYS AI ASTURIAS 02-06/2024

160h AI course with Python in which a project with social impact is developed. Certificate Link

TECHNICAL SKILLS

PYTHON

NumPy, SciPy, Pandas, Sklearn, TensorFlow...

FORTRAN

LaTeX

DATA SCIENCE/ANALYSIS & ML/ AI

LANGUAGES

SPANISH

Native

ENGLISH

Fluent

WORK EXPERIENCE/PROJECTS

RESEARCH INTERNSHIP: MOLECULAR & COMPUTATIONAL PHYSICS 02-05/2025

I will be working for three months on the project *Quantum effects during transport and adsorption of atoms trough nanoporous membranes* at the Fundamental Physics Institute (IFF), thanks to a JAE Intro ICU grant funded by the Spanish National Research Council (CSIC). I will be working on Molecular Dynamics with Fortran and LAMMPS.

RESEARCH INTERNSHIP: SURFACE SCIENCE 2024-2025

Working on Surface & Molecular Physics at SumoLab, a surface science research group which is part of the Nanomaterials and Nanotechnology Research Center (CINN). Main experience: operating a Low Temperature Scanning Tunneling Microscope (LT STM) under conditions of low temperature ($T \approx 4K$) and ultra-high vacuum ($P \sim 10^{-11}mbar$).

RESEARCH INTERNSHIP: DATA SCIENCE 09-12/2024

Project SV-24-GIJON-1-15 with a grant funded by IUTA. Creating a Machine Learning (ML) model able to predict faults and performace of a marine diesel engine.

APPLICATIONS OF ML TO THE STUDY OF BRAIN METASTASES 04-06/2024

Developed inside the context of Saturdays AI Asturias. Github link Code link

ABOUT MYSELF

I am interested in science, I like writing and I love football. Japanese art and culture fascinate me. I come from a family in which hard work and empathy are critical values.

CERTIFICATIONS

OXFORD JUNIOR PROGRAMMES 07/2018

45 Hour English Course, Edinburgh. Certificate

CAMBRIDGE FIRST CERTIFICATE 2017

Council of Europe Level B2. Certificate