



Mateo Rodríguez

· Utrecht, NL · mateorsuarez@gmail.com · · More about me: mateo.github.io ·

WORK EXPERIENCE/PROJECTS

MEMBER OF THE TECHNICAL COMMITTEE OF FYT 2025 CONGRESS

07/2025

I had the pleasure to help organize the Fuerzas y Túnel Conference, a biennial event that brings together the Spanish and international scientific community to discuss the latest developments in scanning probe microscopy. Book of abstracts.

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: MOLECULAR & COMPUTATIONAL PHYSICS

2025

Project IFF-01 at the Fundamental Physics Institute (IFF), thanks to a JAE Intro ICU **competitive grant** funded by the Spanish National Research Council (CSIC).

Molecular Dynamics (MD) with Fortran and LAMMPS. Contribution to the open software MD package LAMMPS with a new intermolecular force field lj/pirani: <https://doi.org/10.20350/digitalCSIC/17300>.

RESEARCH INTERNSHIP: DATA SCIENCE

09-12/2024

Project SV-24-GIJON-1-15 with a **competitive grant** funded by IUTA. We created a Machine Learning (ML) model able to predict faults and performance of a marine diesel engine. Public talk's presentation here.

APPLICATIONS OF ML TO THE STUDY OF BRAIN METASTASES

04-06/2024

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

EDUCATION

MSC IN THEORETICAL PHYSICS

2025-

Utrecht University

BACHELOR OF SCIENCE - PHYSICS (240 ECTS)

2025

University of Oviedo

Bachelor Thesis: *Connecting theory and experiment: study of molecules on surfaces through 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

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 ★★★★☆

FORTRAN ★★★☆☆

LINUX/BASH ★★★☆☆

C++ ★☆☆☆☆

MOLECULAR DYNAMICS

DATA SCIENCE/ANALYSIS

LANGUAGES

SPANISH ★★★★★

Native

ENGLISH ★★★★☆

Fluent (Level C2)

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. For more info about me, visit my website [mateo.github.io](#).

CERTIFICATIONS

CAMBRIDGE ADVANCED

2025

Overall score of 203, Level C2. [Certificate](#)

OXFORD JUNIOR PROGRAMMES

07/2018

45 Hour English Course, Edinburgh. [Certificate](#)