

# Rogério Jorge

E-mail: rogeriodejesusjorge (at) gmail.com, LinkedIn: linkedin.com/in/rogeriodejesusjorge, Birth: April 12, 1992

## Professional Experience

- 2022 May-Now **Invited Assistant Professor (IST) and Junior Scientist (IST-ID)** Instituto Superior Técnico, **Portugal**  
Principal Investigator of national and international scientific grants in nuclear fusion and supercomputing  
• CEEC Fellowship funded by FCT, Enabling Research grant funded by EUROfusion (~€100k)  
Supervisor of 2 Master's and 5 Bachelor's theses and professor of the RFN and TMF courses.
- 2022 Jan-May **IT Consultant** KCS IT, **Portugal**  
Agile Software Development at Defined.AI by processing language datasets for an AI marketplace  
• Implement pipelines for RESTful APIs in Azure Devops with CI/CD, Docker, and Kubernetes.
- 2021 Jun-Dec **Postdoctoral Researcher** Max Planck Institute for Plasma Physics, Greifswald, **Germany**  
Fellow of the Alexander von Humboldt Foundation with a postdoctoral Fellowship.  
• Development of a hybrid Python/C++ package to optimize the performance of nuclear fusion reactors.  
• Deployment of massively parallel codes in supercomputing platforms.
- 2019 - 2021 **Postdoctoral Researcher** University of Maryland, **USA**  
Fellow of the Simons Foundation and member of the international Hidden Symmetries project.  
• Derivation of a mathematical model to design nuclear fusion reactors in three dimensions.  
• Numerical implementation of the model using Python, Fortran, Matlab, and Mathematica.
- 2015 - 2017 **Startup Co-founder & Web Developer** Company: **Portal da Sabedoria**  
Project that started as an educational youtube channel ([youtube.com/user/matmania1](https://youtube.com/user/matmania1)) and evolved to a Tutoring website where students found tutors and had direct access to their schedule  
• Recruit and teach tutors how to develop effective online content.  
• Website development and deployment: Apache, MySQL, HTML, PHP, and Javascript.

## Education

- 2015 - 2019 **Ph.D. in Physics (IST-EPFL Joint Doctoral Initiative)** Topics: Nuclear Fusion, Plasma Physics  
Swiss Plasma Center (SPC) - EPFL, Lausanne, **Switzerland**  
Instituto de Plasmas e Fusão Nuclear (IPFN), Técnico Lisboa, IST, University of Lisbon, **Portugal**  
**Thesis Title:** *"A moment-based model for plasma dynamics at arbitrary collisionality"*. Funded by FCT (Fundação para a Ciência e Tecnologia). Grade: Pass with Distinction and Honour.
- 2010 - 2014 **Bachelor's and Master's in Engineering Physics** Instituto Superior Técnico, **Portugal**  
Studied Programming, General Relativity, Quantum Mechanics and Electronics. Vice-president of the physics student section (NFIST). Organizer of the 1st and 2nd Engineering Physics Career Week.  
Bachelor's grade: 17/20, Master's grade: 18/20, Thesis grade: 19/20.

## Professional Certificates

- 2021 **Applied Machine Learning in Python** Coursera by University of Michigan  
Scikit-learn, model selection, neural networks. Credential: [coursera.org/verify/4ZCWKPCYXHLB](https://coursera.org/verify/4ZCWKPCYXHLB)
- 2021 **Introduction to Data Science in Python** Coursera by University of Michigan  
Numpy, Pandas, Data Cleansing and DataFrames. Credential: [coursera.org/verify/6298Y6WK48E3](https://coursera.org/verify/6298Y6WK48E3)

## Awards and Scholarships

- 2020 **EPS-PPD Research Award** Plasma Physics Division of the European Physical Society  
Prize granted annually in recognition of outstanding research achievements during the Ph.D. studies.
- 2014 **Erasmus Scholarship** Swiss Plasma Center, EPFL, Switzerland  
Perform the work leading to the Master's thesis as an exchange student. Turbulence simulations of fusion devices. Funding from the European Union under a 6 months grant.
- 2011 **Scholarship "Novos Talentos em Matemática" from the Calouste Gulbenkian Foundation**  
1-year scholarship for undergraduate students to carry research on pure/applied mathematics under the guidance of a mathematics professor. Research Topic: String Theory.

## Languages

**Portuguese:** Native, **English:** Fluent, **French:** Advanced, **German:** Basic