

MARCELO GONÇALVES

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Education

 [linkedin.com/in/marcelo-rgoncalves](https://www.linkedin.com/in/marcelo-rgoncalves)

IST - University of Lisbon

MSc in Engineering Physics

Sept 2021 - Present

Lisbon, Portugal

- **Master Thesis:** Machine Learning for Optimizing *in situ* resource utilization on Mars
- **Relevant coursework:** Computational Physics, Object Oriented Programming
- **Anticipated grade:** 17/20

University of Twente – ERASMUS Exchange

MSc in Applied Physics

Sept 2021 - Feb 2022

Enschede, Netherlands

- **Relevant coursework:** Machine Learning, Data Science

IST - University of Lisbon

BSc in Engineering Physics

Sept 2018 - Jul 2021

Lisbon, Portugal

Experience

Teaching Assistant

Instituto Superior Técnico, University of Lisbon

Feb 2023 - Jul 2023

Lisbon, Portugal

- Supporting with instructional responsibilities and leading tutorial sessions on the courses:
 - Mechanics and Waves
 - Physics-I

Summer Internship

Laboratory of Instrumentation and Experimental Particle Physics (LIP)

Summer 2020

Lisbon, Portugal

Exploring the Fast Evolution of QGP:

- Conducted in-depth analysis of simulations and simulated data related to the Fast Evolution of QGP.
- Adapted research strategies based on ongoing results, demonstrating results-oriented decision-making.
- Authored a research paper detailing the findings, later published within the institution.

Publications

Poster Presentation at AAI Spring Symposium

Gonçalves, Marcelo; Ventura, Rodrigo; Guerra, Vasco; C Dias, Tiago.

March 2023

San Francisco, USA

- Presented the novel research problem from my master thesis on *Machine Learning for Optimizing Plasma Resource Utilization on Mars*.
- Selected for a top-tier AI conference in the USA, reflecting the innovative nature of the research.

Article

- Mendes, E., & Gonçalves, M. (2020). *Exploring the fast evolution of quark gluon plasma*, LIP-STUDENTS-20-03

Skills

- **Programming Languages:** Python, C++, C, Java,
- **Frameworks and Libraries:** Pytorch, Tensorflow, Scikit-learn
- **Technologies and Tools:** Linux OS, Root, Wolfram Mathematica