# Matteo Nurisso, Ph.D. student

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## **Employment**

2022 - present

**Scientific Programmer** Consiglio Nazionale delle Ricerche, Institute of Atmospheric Sciences and Climate (CNR-ISAC), Turin.

### **Education**

2018 – 2022 Ph.D., SISSA Astrophysics and Cosmology.

Thesis title: Particles acceleration with Magnetic Reconnection in large scale MHD simulations.

Supervisors: Annalisa Celotti and Andrea Mignone

2014 – 2018 Master Degree, University of Turin Astrophysics and Theoretical Physics.

Protocol number: 31-0001073043-0003006797

Thesis title: Anisotropic Cosmic Ray transport in the galaxy with PLUTO.

Supervisors: Andrea Mignone and Nicolao Fornengo

2011 − 2014 **■ Bachelor Degree**, **University of Turin** Physics.

Protocol number: 31-0001073043-0003006794

Thesis title: The Heisenberg model and the Bethe Ansatz.

Supervisor: Marco Billó

## **Research Publications**

- Nurisso, M., Celotti, A., Mignone, A., & Bodo, G. (To be submitted). Particles acceleration with magnetic reconnection in large scale mhd simulations: Ii. spectra update. *MNRAS*.
- Nurisso, M., Celotti, A., Mignone, A., & Bodo, G. (2023). Particles acceleration with magnetic reconnection in large scale RMHD simulations: I. current sheet identification and characterization. *Monthly Notices of the Royal Astronomical Society.* 6 doi:10.1093/mnras/stad1348
- Nurisso, M. (2018). *Anisotropic cosmic ray transport in the galaxy with pluto* (MSc thesis, Astrophysics and Theoretical Physics, University of Turin).

#### Skills

Languages

Strong reading, writing and speaking competencies for English and Italian. Moderate reading, writing and speaking competencies for French.

Coding

C, C++, Python, Fortran

Misc.

- Git, Github, IDL, Visit, Linux, Slurm, MPI, OpenMP, Cuda, Html, PLUTO code
- Magnetohydrodynamic simulations, Climate simulations, Academic research, Lage type-setting and publishing.

## Miscellaneous Experience

#### **Conferences and Hackatons**

- NextGEMS Cycle 3 Hackaton (Madrid, Spain)
  - **Destination Earth Hackaton** @ BSC (Barcelona, Spain)
- 7th Heidelberg International Symposium on High-Energy Gamma-Ray Astronomy (Barcelona, Spain)
  - Active Galactic Nuclei XIV: The Renaissance of Black Holes and Galaxies (Florence, Italy)
- 2020 **EuroScience Open Forum 2020** (Trieste, Italy)
- 2019 International Conference of Physics Students 2019 (Cologne, Germany)
- 2017 International Conference of Physics Students 2017 (Turin, Italy)

#### **Teaching**

2017 – 2018 **Tutor** of "Introduzione alla programmazione", University of Turin

## Workshops

- 2022 SCtrain training week: Introduction to Parallel Programming
- 2021 Machine Learning Lectures Cluster of Galaxies IFPU group
- 2020 **Deep Learning Day** AI Student Society

#### **Science Communication**

- 2022 Social media management and Personal Branding
  - Science Communication: the use of objects and easy experiments in face-to-face events
- 2021 Science Communication mini-course
- **Training and Sharing**: Best practices in Science Communication
  - Science Dialogues: training course on Science Communication

#### Outreach

2020-2022 Trieste Next volunteer

2018 – present Sissa4Schools volunteer

2018-2021 SISSA Student Day speaker

2017 ICPS volunteer (International Conference of Physics Students)

2013 – present Vice-president of **Silviadizenzero**, active in Climate Science outreach