

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.
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.
Thesis title: *The Heisenberg model and the Bethe Ansatz*.
Supervisor: *Marco Billó*

Research Publications

- 1 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*.
- 2 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*. [doi:10.1093/mnras/stad1348](https://doi.org/10.1093/mnras/stad1348)
- 3 Nurisso, M., Celotti, A., Mignone, A., & Bodo, G. (2022). Particle acceleration via magnetic reconnection in large-scale MHD jet simulations. (Vol. 17, pp. 54–55). [doi:10.1017/s1743921323000935](https://doi.org/10.1017/s1743921323000935)
- 4 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, \LaTeX type-setting and publishing.

Miscellaneous Experience





Conferences and Hackatons

- 2023  **NextGEMS Cycle 3 Hackaton** (Madrid, Spain)
-  **Destination Earth Hackaton @ BSC** (Barcelona, Spain)
- 2022  **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

- 2023  **CodeRefinery workshop**: Introduction to Git, Collaborative distributed version control, Reproducible and tested code and research
- 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
- 2019  **Training and Sharing**: Best practices in Science Communication
-  **Science Dialogues**: training course on Science Communication

Outreach

- 2020-2022  **Trieste Next** volunteer
- 2018 – 2022  **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