Matteo Nurisso, Ph.D. student

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https://mnurisso.github.io/

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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.

 $The sis \ title: \textit{Particles acceleration with Magnetic Reconnection in large scale MHD simulations}.$

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, Academic research, LTEX typesetting and publishing.

Miscellaneous Experience

Conferences

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