

Adrien Anthore

*Graduate with a MSc in Astrophysics
specializing in observational astrophysics.*

Research interests: Galaxy: general - Radio lines: galaxies
Radio continuum: galaxies - Instrumentation: interferometers
Methods: observational - Methods: data analysis - Deep Learning.

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🌐 [Web Page](#) [in LinkedIn](#) [on Github](#)

Education

- 2022 – 2024 **Master in Space Sciences and Technologies**, *Observatoire de Paris - PSL*, Paris.
International Research Track, major in Observational Astrophysics. General astrophysical training with a focus on Observational techniques, data analysis, instrumentation, HPC, and Machine Learning.
- 2019 – 2022 **Bachelor of physics**, *Sorbonne Université*, Paris.
General physics, intensive track focused on theoretical and mathematical aspects.

Research Experience

Internships

- 2023 – 2024 **Master 1 & 2 internships**, *LERMA (Observatoire de Paris)*, 14 & 20 weeks.
Supervised by **D. Cornu**. Subject: Detection and characterization of sources in radio astronomical datasets using Deep Learning. Skill developed: data analysis, Machine Learning (CNN), programming (Python), GPU computing, SLURM.
- 2022 **3rd year Bachelor Internship**, *Institut d'Astrophysique de Paris*, ~ 5 weeks.
Supervised by **D. Leborgne**. Subject: Determination of galaxy evolution scenarios with statistical methods. Skill developed: galaxy physics, statistical methods (MCMC), programming (Python).

Lab Insertion

- 2023 **Master 2 Lab Insertion Unit**, *LERMA (Observatoire de Paris)*, 20 days.
Supervised by **D. Cornu**. Subject: Deep Learning for galaxy detection on radio-astronomical surveys. Skill developed: Machine Learning (CNN), programming (Python), GPU computing, SLURM.
- 2022 **Master 1 Lab Insertion Unit**, *GEPI (Observatoire de Paris)*, 12 days.
Supervised by **W. Van Driel & J.-M. Martin**. Subject: HI line observations of galaxies with the Nançay Radio Telescope. Skill developed: observational techniques, data reduction and analysis, programming (Python).

Programming skills & Scientific Computation

Languages

Python, C, C#, advanced.

High-Performance Computing (HPC)

MPI, CUDA, intermediate.

Statistical Learning

Frameworks: **CIANNA, Scikit-Learn, Tensorflow**, advanced.

Allocations on calculators

Minerva server, MesoPSL server, Tycho cluster, GPU computing, SLURM.

Observational Projects

Research project

- 2022 **Nançay Radio Telescope 100m**, observation of 8 edge-on late-type galaxies, data product send to [EDD database](#), ~20 hours.

Other projects

- 2023 **Meudon's observatory T-60 & T-45**, *Master 1 training*, multi-band observation of M42 and bright stars, ~8 hours.
- 2022 **Paris' observatory 3m single dish antenna**, *3rd year bachelor training*, HI observation of clouds in the Milky-way, ~8 hours.
- since 2020 **Amateur optics & Electronically-Assisted devices**, I perform my own observation and introduce amateurs to sky observations.

Scientific animation and outreach

Student organisation involvement

- 2024 President of "BDE de l'Observatoire de Paris" (Student Council).
- 2022 Head of the communication department at Top Aéro, [web site](#).
- 2021 Head of the events department at Top Aéro, [list of the events](#).
- 2020 – 2022 Participation in the experimental rocket project Zéphyr at Top Aéro, launched in 2022, [project page](#).

Popularization involvement

- since 2021 **L'Observatoire d'Adrien**, Popularization program on the internet, scientific content focusing on astrophysics, astronomy, and research, [YouTube](#), [TikTok](#), and [Instagram](#).
- 2023-2024 **Fête de la Science**, *Observatoire de Paris, Meudon*, activities around astronomy and astrophysics, 3 days/year, [web site](#).
- 10/2022 **Fête de la Science**, *Sorbonne Université, Paris*, activities around aeronautics and aerospace, 2 days, [web site](#).
- 10/2021 **Festival Explor'Espace**, *Montrouge*, activities around aeronautics and aerospace, 3 days, [web site](#).

Conferences and workshops

- 07/2024 **EAS 2024 - SS31: The Square Kilometre Array Observatory: pathway to science operations**, *Padova*, [ePoster](#), [web site](#).
- 05/2024 **AI for Radioastronomy**, *Göteborg*, conference, [web site](#).

Teaching

- since 2023 **SPRINT Summer Camp**, *Sorbonne University*, Introduction to Astrophysics - ~8h (volunteering).