

Alexandre PRIEUR

M2 Astrophysics - Observatoire de
Paris / École Normale Supérieure

45, rue d'Ulm
75005 Paris

+33 6 68 455 123

✉ alexandre.prieur@ens.psl.eu
alexandre.prieur.eu



Formation

- 2022-2023 **Informatics minor**, ENS.
Informatics minor - compilation, computer graphics, computational geometry learning, reactive and parallel programming
- 2021 - 2022 **M2 AAIS**, Observatoire de Paris.
Master of astronomy and astrophysics - specialization in dynamics of gravitational systems
- 2020 - 2021 **M1 ICFP**, ENS.
Master of fundamental physics, oriented around theoretical courses and numeric physics
- 2019 - 2020 **Physics Bachelor**, ENS.
Third year of Bachelor's degree in physics
- 2017 - 2019 **Preparatory class - PC***, Stanislas, Paris.
Preparation to national competitive exams for admission in "Grandes Écoles" . Mathematics, physics and chemistry ; equivalent to first two years of bachelor's degree
- 2017 **Scientific baccalaureate with honours**, *physics specialisation*.
Saint-Louis-de-Gonzague, Paris

Achievements

- 2022 **SWERC**.
Ranked 49th at the international algorithmic contest in a team of three (ENS Ulm 2).
- 2019 **École Normale Supérieure (Paris) national competitive examination**.
Ranked 10th ; also ranked 12th at the École Polytechnique
- 2017 **Concours général des lycées (National competition)**.
4th prize in ancient greek, mention in physics, selected in philosophy

Experiences

- March-July 2022 **Internship : Numerical research of periodic orbits in the three body problem**, under the direction of Jacques FÉJOZ and Gwenaél BOUÉ (researchers at the IMCCE).
During one week, we used the T120 telescope of the OHP (Observatoire de Haute-Provence) to determine orbits of near-Earth objects, in order to complete the MPC's (Minor Planet Center) database.
- March 2022 **Project : astrometry of small bodies**, with Dylan KUHN, under the direction of Lucie MAQUET (researcher at the IMCCE).
During one week, we used the T120 telescope of the OHP (Observatoire de Haute-Provence) to determine orbits of near-Earth objects, in order to complete the MPC's (Minor Planet Center) database.
- March-July 2021 **Internship : Detection of stochastic gravitational wave background by multiple space detectors**, under the direction of Giulia CUSIN (researcher at the UNIGE).
For five months, I completed the schNe11 Python package in order to study the capacity of multiple space detectors to detect stochastic gravitational waves backgrounds.
- July 2020 **Internship : Data reduction of an observation of the protostar Cepheus E by SOFIA/GREAT**, under the direction of Antoine GUSDORF (researcher at the LPENS).
During one month, I learned to use CLASS and GREG (part of the GILDAS software) in order to reduce astronomical data.

2019-current **Project ArcHe**, *Founder*.

Student project aiming to build and fire a rockoon. More than 50 students from 4 french universities work on the project (ENS Paris, Polytechnique, Mines de Paris, ENS Lyon), and two school projects are supervised by the association.

2018-2019 **Project : Study of the field electron emission in atmospheric conditions, and the effect of pressure.**

This project was done in pairs, and required us to create, set up and use an experiment in order to test field electron emission in a school lab.

Languages

French Native

Greek Native

English Level C2 (CAE grade A)

German Level C1

Japanese Notions (A1)

Programming

Python Programming with Python 3 for data analysis and numerical physics ; use of classical scientific modules (Numpy, Scipy, Matplotlib)

Julia Experimental programming with Julia for numerical physics

C Programming with C for numerical physics and heavy simulations

C# Programming with the Unity framework for modelization and game development

C++ Programming of efficient algorithms for the SWERC

GLSL Rendering of a black hole with GLSL

Caml Compiler for a subset of C written in OCaml, use of ReactiveML for reactive and parallel programming

Lustre Notions ; prototype of rocket overwatch in reactive programming

HTML/CSS Notions for basic websites

Hobbies

Informatics.

I program both for physics and for personal hobbies, and I study informatics at the ENS.

Astronomy.

I founded the astronomy and astrophotography club at the ENS, to promote the passion of space.

Philosophy.

I study philosophy as a personal interest since 7 years.

HEMA.

I supervise the HEMA (Historical European Martial Arts, or historical swordsmanship) club at the ENS, and personally study italian dagger.

Sailing.

I sail every year since my childhood with my family in Greece.