# Emilie PERNET

(+33)789940081 | ep00856@surrey.ac.uk

### WORK EXPERIENCE

# Student researcher

06/02/2023 - 08/12/2023

Instituto de Astrofísica de Canarias

La Laguna, Santa Cruz de Tenerife, Spain

Supervisor: Dr. Ignacio Martin Navarro

- "Galaxies evolution through their stellar population"
- Work presented as a conference talk during "A life devoted to stellar population" (October 2023), published letter (in progress)
- Use of Python, pPXF, astropy, spectral analysis

### "Discovering" placement

October 2017

Université Grenoble Alpes

La Tronche, Isère, France

Supervisor: Mikael Martin, Lab Manager

- To discover a research lab environment (technicians, engineers, researchers)
- I took part in: bacterial experiments, preparation of bacteria and yeast's medium, PCRs and agarose gels.
- I learnt: how a research team works, how to work within a team, what is to be a researcher

#### **EDUCATION**

### Univertsity of Surrey

Guildford, UK

MPhys degree, Nuclear Astrophysics

2020-present day

(expected graduation 06/2024)

- Four years course, including 10 months of research Feb-Dec2023
- Year 1: 82.63%; Year 2: 82.75%; Year 3: 78%
- Modules including: Special relativity, Nuclear Astrophysics, Atoms to Lasers, Modern Computational techniques, Research techniques in Astronomy
- Awards: 'The Department of Physics Level 5 Prize' for the best overall performance at Level 5 of the Physics UG Programmes and 'The Dr. Chris Sullivan Prize': for the best performing second-year student in Atoms to Lasers

# CNED (online school) & ASPEN (private structure)

Meylan, France 2018-2020

French Baccalauréat, Scientific

- Final grade (with coefficients): 16.88/20, "with highest honour"
- Detailed grades: Physics-Chemistry: 20/20, Mathematics: 19/20, Biology: 17/20, History: 17/20, English: 14/20, Philosophy: 14/20, German: 14/20, French: 12.5/20
- I completed the three years of high school in two years

# Computing

- Fluent in Python, main libraries (e.g. NumPy, Matplotlib) and specific libraries (e.g. pPXF, astropy)
- Competent with Microsoft 365, especially Excel, used for data analysis
- Competent with Latex, used to write reports, paper, and other documents
- Basic knowledge of C, online courses

#### Communication and team work

- Class representative for 3 years, communication between students and teachers
- Member of the Administration Board in secondary school
- Took an active part in University's group projects (e.g. Asteroid trajectory and interception; Fabry-Perot Interferometer experiment, etc)
- Communication within a research team: group meetings, journal club, etc

# LANGUAGES AND HOBBIES

#### Languages

- French, mother tongue
- English, fluent (test from 2020 before studying in the UK: B2 level)
- German, learned in school, beginners level
- Spanish, self taught, beginners level

#### **Hobbies**

- Diving (since 2017): member of the University Scuba Diving Society's Committee.
- Badminton (since 2015): competitions at school then university level.
- Board games: strategic and cooperative games. Involved in the University Board Games Society.
- Photography
- Reading

#### References

| ${f Name}$             | Employer                                 | $\mathbf{Title}$ | Email                     |
|------------------------|--|------------------|---------------------------|
| Ignacio Martin Navarro | Instituto de Astrofísica de Canarias     | Dr.              | imartin@iac.es            |
| Lisa Morrison          | Physics Department, University of Surrey | Dr.              | l.n.morrison@surrey.ac.uk |