

Bastien Carreres | PhD

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[bastiencarreres.github.io](https://github.com/bastiencarreres)

Research Experience

- **Post-Doctorate Associate** **Durham**
Duke University 2023-Today
- **PhD student** **Marseille**
CPPM, Aix-Marseille University 2020-2023
Subject: Measuring the growth rate of structures with type Ia supernovae.

Education

- **PhD - Astrophysics & Cosmology** **Marseille**
ED 352, Aix-Marseille University 2019-2020
- **Master's degree 2nd year - Subatomic Physics and Cosmology** **Grenoble**
UFR PhiTEM, Grenoble-Alpes University 2020-2023
Admitted with honours
- **Magister of Physics 3rd year** **Grenoble**
UFR PhiTEM, Grenoble-Alpes University 2019-2020
Admitted
- **Master's degree 1st year - Physics / Fundamental Research** **Grenoble**
UFR PhiTEM, Grenoble-Alpes University 2018-2019
Admitted with honours
- **Magister of Physics 2nd year** **Grenoble**
UFR PhiTEM, Grenoble-Alpes University 2018-2019
Admitted
- **Bachelor's degree - Fundamental Physics** **Montpellier**
Faculté des Sciences, Université de Montpellier 2017-2018
Admitted

Publications

- **Carreres et al. 2023.** Growth-rate measurement with type-Ia supernovae using ZTF survey simulations. Published in A&A. DOI: <https://doi.org/10.1051/0004-6361/202346173>. Preprint available at <https://arxiv.org/abs/2303.01198>.

Schools & Internships

- **Euclid Summer School - 2 weeks / year lectures** **Hyères, Biarritz and Banyuls**
Euclid France August 2020 - 2021 - 2022
Subject: Science of futur cosmological surveys
- **Pre-Thesis Internship** **Marseille**
Centre de Physique des Particules de Marseille March-Jully 2020
Subject: Cosmology with type Ia supernovae
- **Master's degree 1st year Internship** **Grenoble**
Laboratoire de Physique Subatomique et Cosmologie May-June 2019
Subject: Search for new particles that decay into top-antitop pair
- **OCEVU summer school** **Montpellier**
Labex OCEVU June 2017
One week of seminars and one week-end of observations at *Hautre-Provence Observatory*

Responsibilities, Teaching & Outreach

- 2021-2023: **Co-organisation** of the CPPM cosmology group journal club
- 2021-2022: **Co-organisator & Volunteer** for the CPPM participation at **Fête de la Science** (the largest French science outreach event) at Marseille Townhall
- **Graduate Teaching Assistant** (64 hours / year) during PhD at Aix-Marseille University
- **Outreach website** co-created with L. Vacher (<https://yolonomy.github.io>)
- 2016-2017: **Maths tutoring** for high-school students

Fellowship

- **PhD fellowship** Aix-Marseille University ED 352, 3 years contract
- **LSSTC Enabling Science Program Award 2021**, 5000\$ award

Talks & Posters

- Poster "Peculiar velocities with SNe Ia" at DESC Meeting 2022 at University of Chicago
- Poster "Peculiar velocities with SNe Ia" + proceedings at Rencontres de Moriond 2022
- Talk "Growth rate with Type Ia Supernovae" at LSST France 2022
- Multiple talks at ZTF France (Lyon, Marseille, Clermont-Ferrand), ZTF SN1a (Stockholm) and ZTF international (Paris) collaboration meetings.

Skills

- **Computer languages:**
 - **Python:** Advanced
 - **C/C++:** Basic
 - **HTML/CSS:** Beginner
- **Languages:**
 - **French:** Native
 - **English:** Fluent
 - **German:** Beginner