

Ewan Chamberlain

ec719@sussex.ac.uk | +44 7443 533 205 | Nationality: British Citizen
Brighton and Hove, East Sussex, United Kingdom, BN1 9EU

EDUCATION

UNIVERSITY OF SUSSEX
PHD IN ASTRONOMY
SEP 2024 – PRESENT
UNIVERSITY OF CAMBRIDGE
MSci IN ASTROPHYSICS
Oct 2022 – Jul 2023
Grade: 1st Class with Distinction

UNIVERSITY OF CAMBRIDGE
BA HONS. (CANTAB.) IN NATURAL SCIENCES
Oct 2019 – Jun 2022
Grade: 1st Class

LINKS

Github:// [ewanchamberlain](#)
LinkedIn:// [ewanchamberlain](#)

LECTURE COURSES

ASTRONOMY PHD

Quantum Field Theory
Data Analysis Techniques

PART III ASTROPHYSICS

Cosmology
Astrophysical Fluid Dynamics
The Life and Death of Galaxies
Astrophysical Black Holes

PART II ASTROPHYSICS

Relativity
Astrophysical Fluid Dynamics
Introduction to Cosmology
Structure and Evolution of Stars
Statistical Physics
Principles of Quantum Mechanics
Stellar Dynamics and Structure of Galaxies

SKILLS

PROGRAMMING

Fluent
Python • MATLAB • C++ • \LaTeX
Familiar
Bash • SQL • HTML • VBA

LANGUAGES

English (native) • Spanish (GCSE A*)

PUBLIC SPEAKING

LAMDA Gold

RESEARCH

PHD PROJECT | MICROWAVE BACKGROUND POLARIZATION AND LENSING

Sep 2024 – Present
Astronomy Centre, University of Sussex
Supervisors: Prof Antony Lewis, Dr Eva-Maria Mueller

- Constraining early time physics with CMB lensing and polarization.
- Using CMB simulations, as well as numerical codes **CAMB** and **Cobaya**.

MASTER'S PROJECT | POWERFUL AGN OUTFLOWS AT COSMIC NOON CAN RESOLVE THE S_8 TENSION?

Oct 2022 – May 2023
Institute of Astronomy, University of Cambridge
Supervisors: Prof Debora Sijacki, Dr Martin Bourne, Dr Vid Irsic

- Explored the parameter space of powerful AGN outflows between redshifts $z = 3$ and $z = 2$.
- Performed a literature review around the S_8 tension and previous attempts to solve it with hydrodynamical cosmological simulations.
- Ran and analyzed data from six modified FABLE zoom-ins, implementing more powerful AGN sub-grid parameters, to find the impact on the matter power spectrum.
- Produced analytical models that can be used in future studies to run targeted zoom-ins.
- Presented results in a 20 minute talk and in a 30 page report.
- Attended and presented at supervisors' group meeting.

WORK EXPERIENCE

CALOR GAS | TANK DATABASE ADMINISTRATOR

Aug 2023 – Present | Warwick, UK

- Responsible for updating tank data in SAP, especially with regards to tank transfers and tank tests.
- Exploring methods of streamlining workflow after migration to SAP.
- Created powerful spreadsheet templates in Excel to increase productivity.

AWARDS

2023 Robinson College Prize
2022 Robinson College Prize and College Scholarship

EXTRA-CURRICULAR

- Karate: Second Dan black belt. Treasurer of University club from 2021–2022. Competed in national competitions, as well as the annual Varsity match against the University of Oxford.
- Chairperson of Robinson College Board Game Society, 2022–2023.
- Webmaster and Treasurer of Robinson College Video Game Society, 2022–2023.
- Attended Institute of Astronomy's weekly Wednesday Seminars.

REFERENCES

Available at request.