

Yu Coughlin

CONTACT INFORMATION yu.coughlin23@ic.ac.uk
<https://yusername05.github.io/>

EDUCATION **Imperial College London**
MSci Mathematics 10/2023 - 6/2027
Exeter Mathematics School
A levels 09/2021 - 06/2023

- Mathematics, Further Mathematics, Physics, Computer Science
- A*A*AA

Churston Ferrers Grammar School
GCSEs 09/2016 - 06/2021

EMPLOYMENT AND EXPERIENCE **Exeter Mathematics School**
Axiom Maths Mentor 12/2024-Present

- Held weekly maths circles sessions for key stage 3 and 4 students on aspects of recreational mathematics and problem solving;
- Prepared and adapted the provided content for each session based on individual needs of students;
- Coordinated with other mentors and staff to organise cover sessions for absences.

Plymouth Marine Laboratories
Web Developer 08/2023 - 10/2023

- Continued the development of the web interface for a tool to calibrate and analyze hyperspectral data;
- Back-end development on multitask processing suite.

PROJECTS **UROP** Generalised sheaf cohomology 06/2025 - 09/2025
Departmentally funded undergraduate research opportunity spanning 10 weeks of my second year summer, supervised by Tom Coates, culminating in a report. Learning about the relation between Čech cohomology and sheaf cohomology.
M2R Reflection groups 06/2025
Second year research project, culminating in a report and a presentation. Gave a proof of the classification of finite reflection groups.
M1R Lamplighter groups and Diestel-Leader graphs 06/2024
First year research project culminating in a poster and a presentation. Gave a proof the Cayley graph of the standard lamplighter group is a Diestel-Leader graph.

LANGUAGES **Languages**
English - Native
Programming
Python, Latex, Lean, Agda