



What is the CMP Programme?

The **Cambridge Mathematics Placements (CMP)** programme provides research opportunities for students studying for undergraduate or Master's degrees in Mathematics. CMP enables students to find summer research placements in industry, the public sector, and other University departments. Students develop transferable skills and gain experience doing innovative mathematical research in an external setting, while hosts engage a talented mathematician to tackle research questions they face. In 2019, the programme facilitated 12 academic and 23 industry placements.

University departments and labs looking to engage a student with a background in mathematics can submit their projects to CMP. We will advertise the projects on our website and through our series of lunchtime seminars in January and February. Although we cannot promise a suitable student, we will do our best to help you find one. Projects are generally open to students in Parts IB, II and III, but the project host can specify precisely what background and skills they require.

Benefits for Hosts

Direct engagement with Cambridge Mathematics Masters and undergraduate students

- Pitch projects at the CMP lunchtime seminar series and select students for summer placements. There is a high degree of freedom to propose both well-developed and speculative projects.

Involvement with a growing knowledge exchange community

- Interact with a maths-focussed research community comprising the Mathematics Faculty, other departments, public sector organisations and industrial partners.
- Develop relationships that may lead to collaborations.
- Attend CMP Presentation Day to hear other host/student placement experiences and approaches, followed by dinner at a Cambridge college.
- Participate in the CMP Annual General Meeting to review the programme and suggest improvements.

Progression of research objectives

- Projects tackle research challenges in a diverse range of areas, and provide new approaches to solving problems.
- Placements bridge gaps in mathematical expertise.

2020 Programme Dates

December 2019 to 17 January 2020: Project proposals accepted and listed on the CMP website.

27 January to 19 February 2020: CMP lunchtime seminar series takes place on Mondays and Wednesdays. At each session, 5-6 hosts give short talks, followed by informal discussions with the students. .

21 February 2020: Recommended deadline for students to express interest in projects.

21 February to 6 March 2020: Recommended period for organisations to review applications, interview, and make offers to students.

6 March 2020: For reasons of fairness, we ask that no student be required to respond to an offer before this date.

13 March 2020 Bursary applications must be received by this date for consideration in the first round of funding. Decisions will be announced in late April.

5 May 2020: Deadline for bursary applications for consideration in the final round of funding. Decisions announced in late May/early June.

June to September 2020: CMP projects take place, with exact dates agreed between student and host.

August 2020: CMP Presentation Day and Dinner.

September 2019: Reports and project feedback due.

A note on financial support

We have a small fund for academic projects, but we ask all students and hosts to do their utmost to find complementary funds from their own sources. Changes to University policy mean we can no longer provide direct bursaries, and that CMP students will be employed by either the host department or the Faculty of Mathematics. CMP can facilitate this process, but the projected cost of placements has gone up significantly, to slightly less than £3000 for 8 weeks. Due to this increase, we ask that academic hosts (especially returning ones) make an extra effort to find funds within their department to help cover costs, ideally of at least half of the project.

Bursaries are made possible thanks to the generosity of individual donors and members of our CMP Supporters Club, which we welcome you to join. To find out more, please write to us at CMP@maths.cam.ac.uk.

What our hosts are saying...

2019 CMP Hosts

BP

Cambridge Advanced Imaging
Centre

Cavendish Laboratory

Centrica

Computer Laboratory

Department of Engineering

Department of Veterinary
Medicine

EMBL-EBI

Faculty of Music

GSK

Health Data Insight

Iconal Technology

Judge Business School

MM Flowers

National Physical Laboratory

Oxford Asset Management

Riverlane

Shell

Silvaco Europe, UK

The Met Office

Transfaction

Special thanks to the organisations indicated in bold, who are also members of our CMP Supporters Club.

“Qing provided essential help in the implementation and assessment of methods of interest to GSK for the design and analysis of pharmacokinetic studies. She has been dedicated to this project, yet practical in her availability to be guided so as to remain focussed on what needed to be achieved within a limited amount of time. We all wish that we had more time to do more.”

- Fabio Rigat, GSK

“Very impressed! Callum made more progress in the first 3 weeks of his placement than a previous Master's student had done in 3 months! From day one he has taken a very professional approach to the problem and has required less supervision than I had anticipated. He just gets on with the work, makes astute comments, asks relevant questions and delivers useful results.”

- Olivier Restif, Department of Veterinary Medicine

“Excellent student. Got to grips with the programming environment very quickly and showed excellent understanding of the underlying principles and the specific problem. Devised a simulation method of addressing the problem and a new algorithm.”

- Malcolm Kitchen, Met Office

“Maisie has been able to quickly and independently research and identify a working alternative and seemingly much improved approach to an algorithm that forms a significant part of the final deliverable of a high profile R&D project for an external customer.”

- Sam Pollock, Iconal Technology

100% of hosts providing feedback on CMP projects in 2019 say that they would recommend that other organisations get involved with the programme.

100% of hosts also say that their student's mathematical background enabled them to make a significant contribution to the project. In more than half of these cases, the work undertaken would not have been done otherwise.

Become a CMP Host

Think your group or lab has a good project for a Cambridge Maths student?

Propose a CMP project for 2020

<https://www.maths.cam.ac.uk/project-proposal-form>

To learn more about the programme and view past project proposals visit

<http://www.maths.cam.ac.uk/opportunities/careers-for-mathematicians/summer-research-mathematics>

Still have questions or want to talk about other ways to get involved? Write to us at CMP@maths.cam.ac.uk