

Final report on MHM: Modern History of Mathematics
INI, 8 January – 2 May 2025

The history of mathematics is an internationally active field of research, inherently multidisciplinary, with links to many fields, not least mathematics itself. The title of this programme, ‘Modern History of Mathematics’, admits two interpretations: contemporary approaches to the study of the history of mathematics, and the study of the history of recent mathematics. Both aspects were represented in the programme, the first history of mathematics programme to be held at the INI. Interaction and collaboration with mathematicians is particularly crucial to the second interpretation, and was amply facilitated during the four months in Cambridge. Other connections forged included a joint event with the parallel EHT programme, and extensive interactions with Cambridge Mathematics, Computer Science, History and Philosophy of Science, and museums.

The programme opened with a workshop concerning lacunae in the study of the history of mathematics, and closed with a workshop to identify future directions in the field. At the closing workshop, the direction was set by early career researchers, some of whom had been able to stay for the whole programme. Indeed, the presence of so many ECRs at the programme, and the many successful social and career-development activities they organised, added to the vibrancy of the programme overall. Social excursions included a trip to Bletchley Park and the Centre for Computing History.

Over its four months, the programme hosted 117 scholars who delivered a total of 83 talks. Significant strands concerned the American geometer Oswald Veblen, the classification of finite simple groups, the 1894 Brill–Noether report on algebraic functions, G. D. Birkhoff and topological dynamics, twentieth-century 3-manifolds, and the history of computing and data science. Satellite events included a joint meeting with the LMS on the value that historians of mathematics can bring to mathematics departments, a workshop on using history to promote diversity in mathematics education, an event at the Department of Computer Science and Technology entitled ‘Where did AI come from?’, and a play about Emmy Noether. Programme participants were also involved in wider INI activities, such as a meeting of the IMU Executive Committee.

Participants in the programme seized upon the opportunity to explore the rich archives in Cambridge, adding a further exciting aspect to the research environment, as people discussed unexpected discoveries. Many MHM participants will be building upon these archival finds for years to come.

Attendees provided overwhelming positivity in the post-programme survey; all rated the programme excellent (97.5%) or good; over half opened new research directions; and over 60% opened new collaborations. Comments praised the interactions, high-quality seminars, and chance to focus seriously on written work.