

Report on the Durham Symposium on Metric Geometry, Analysis and Probability

1 September 2026

The Durham Symposium on Metric Geometry, Analysis and Probability took place at Durham University from 13 to 17 July 2026. The five-day meeting brought together 51 researchers from the United Kingdom, Japan, Mexico, China and several European countries, with the aim of promoting interaction between researchers working at the interface of metric geometry, geometric analysis and probability.

The symposium was organised by Fernando Galaz-García, Martin Kerin and Kohei Suzuki from Durham University, together with Amaranta Membrillo Solis from Queen Mary University of London.

The scientific programme consisted of 22 research talks, together with poster sessions and substantial time for informal discussion. Topics represented at the symposium included Alexandrov spaces, Gromov-Hausdorff convergence, manifolds with lower curvature bounds, spectral geometry, metric measure and RCD spaces, geometric partial differential equations, Lorentzian geometry and sub-Riemannian geometry. The meeting brought together both established researchers and early-career mathematicians, including 10 early-career speakers. The programme therefore provided opportunities for researchers at different career stages and from a range of backgrounds to present their work and develop new research connections.

An important goal of the symposium was to strengthen existing international links, in particular between researchers in the UK and Japan, while at the same time creating connections with a broader European and international community. Participants came from institutions including the University of Tokyo, Osaka University, Tohoku University, Fukuoka University, Niigata University, the University of Vienna, the Chinese Academy of Sciences, Maynooth University, the Università degli Studi di Roma Tor Vergata, the Universidad Autónoma de Madrid and Vrije Universiteit Brussel. The opening programme also included an address by Katsutoshi Takeda, Consul General of Japan in Edinburgh, highlighting the international character of the meeting.

Support from COST Action mSPACE made possible the participation of two early-career researchers, Manuel Dias (Vrije Universiteit Brussel) and Victoria Pelayo Alvaredo (Universidad Autónoma de Madrid). Their participation contributed directly to

one of the central aims of the symposium: enabling ECRs to take part in an international research meeting, interact with leading specialists in their fields, and extend their professional and scientific networks. A third researcher who had initially been identified for COST support, Masoumeh Zarei (University of Hamburg), was unfortunately unable to attend.

The symposium generated extensive scientific discussion throughout the week, both within the formal programme and during poster sessions, breaks, and social activities. Several new research connections were established, while existing collaborations and international partnerships were strengthened. The social programme, which included the conference dinner and guided visits to Durham Cathedral and Durham Castle, offered further opportunities for interaction among participants.

Overall, the symposium successfully brought together complementary communities in metric geometry, analysis and probability and provided a particularly valuable environment for interaction between established and early-career researchers. We are grateful to COST Action mSPACE for its support, which contributed directly to the overall success of the meeting.

On behalf of the organisers,

Dr Fernando Galaz-García

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