Professor Richard Samworth FRS wins 2 awards for outstanding contributions to statistics

Last month Richard Samworth, Professor of Statistical Science in the Department of Pure Mathematics and Mathematical Statistics (DPMMS) and Director of the Statistical Laboratory, was awarded 2 prestigious prizes in the space of 24 hours â€“ an inaugural David Cox Medal, given for the first time ever this year, and the Guy Medal in Silver.

Both awards recognise Richard's extraordinary contributions to the field, at the forefront of the majority of topics statistics has focussed on over the past 2 decades, as well as his outstanding work as a supporter and mentor of others.

Much of his work has involved developing new statistical methods, as well as statistical theory, to tackle modern data challenges. Discover more in our article.

Pushing forward the boundaries of statistics

Creating a new language for quantum physics

"Quantum mechanics was the biggest disruption in physics ever," says Frank Verstraete, Leigh Trapnell Professor of Quantum Physics at the Department of Applied Mathematics and Theoretical Physics (DAMTP). "But things have changed enormously in the last 15 years. We have a new language so we can ask new questions."

In the 100th anniversary year of quantum mechanics, we talked to Frank to learn more about his work on tensor networks, which provide a new language to describe the quantum world â€“ and to make hard problems simpler.

A new language for quantum physics

Celebrating outstanding teaching: Professor James Fergusson wins Pilkington Prize

Professor James Fergusson from DAMTP has been awarded a 2025 Pilkington Prize. The Prize recognises both his exceptional lecturing, and his work launching the innovative and exciting new MPhil in Data Intensive Science.

The award marks the third consecutive year in which course leaders in the Mathematics Faculty have been recognised for their outstanding teaching, following the Pilkington Prizes awarded in 2024 to Professor Julia Wolf and to Dr Jonathan Evans in 2023.

Celebrating outstanding teaching

Exploring AI for society's benefit

In January, Professor Carola-Bibiane SchÃ¶nlieb from DAMTP met senior UK Government Minister the Rt Hon Pat McFadden MP when he visited Cambridge. They discussed the innovative BloodCounts project â€“ one of the largest applications yet of machine learning in healthcare.

The project is one of a range of applications of artificial intelligence to the biggest societal challenges of our time that researchers in the Mathematics Departments are working on. From healthcare to climate change, discover some of the ways researchers in the Faculty are building cross-sector collaborations exploring opportunities for AI to make a difference â€“ for all of us.

Shaping AI for everyone

AI goes to physics class

The potential of artificial intelligence to support complex applications such as weather forecasting is huge, but can we trust a system which has no experience of the physical world to produce reliable outputs about physics? One exciting area of work on this involves physics-informed neural networks, or PINNs for short.

We talked to members of the Mathematics for Deep Learning collaboration, involving researchers in DAMTP, DPMMS, and at Bath and UCL, about the potential of PINNs and how their work on the mathematical foundations of machine learning could help.

Discover more

Voices of Maths: explore our podcast selection for the Cambridge Festival

To celebrate the annual Cambridge Festival, we chose a selection of our favourite podcasts featuring conversations with members of the Mathematics Faculty.

Join us to discuss uncertainty with Professor David Spiegelhalter; learn about the enduring legacy of Fermat's Last Theorem with Professors Tom KÃ¶rner and Jack Thorne; ask Professor Ben Allanach whether physicists might have found evidence of a fifth force of nature; and explore the importance of communicating mathematics with Professor Hannah Fry.

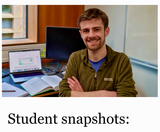
Listen now

Student snapshots: Sofia Monarchi

Sofia Monarchi is a second-year undergraduate, currently doing Part Ib of the Mathematical Tripos.

She tells us about her favourite subjects, some of the highlights of wider student life, and what advice she would give to prospective maths undergraduates applying to Cambridge.

Read Sofia's interview



Student snapshots: Joel Winterton

Joel Winterton is a first-year PhD student in DAMTP, researching infectious disease dynamics.

He talks to us about the joys of curiosity, exploring how brain-tickling maths can help people, and the difference a Martingale Scholarship has made.

Read Joel's interview

UNIVERSITY OF CAMBRIDGE

Faculty of Mathematics
Centre for Mathematical Sciences, Wilberforce Road,
Cambridge CB3 0WA, UK

Call: +44 (0)1223 765000
Email: alumni@maths.cam.ac.uk