

## June 2025:

Dear all,

With the heatwave and examining both over, I hope summer will bring some very pleasant and productive times. As last year, I thought it might be helpful to remind and update you on some news before the long break, and also to share one or two upcoming changes which will impact many of us for the coming academic year (UTOs and CTOs: see in particular the paragraph on part III advising towards the end).

**Congratulations**, as always, are due in a whole host of directions, but let me particularly point to: Po-Ling Loh and Julian Sahasrabudhe on their promotions; Jason Miller on Election as Fellow of the Royal Society; Richard Samworth on his receipt of the Royal Statistical Society's Guy Medal in Silver and David Cox Medal; Po-Ling on the Bernouilli society's Ethel Newbold Prize, and to her and Rajen Shah for their elections as Fellows of the Institute of Mathematical Statistics; Mark Gross for the AMS Moore Prize; and to Julian and Joni Teravainen for ERC grants, Julia Wolf for an EPSRC Fellowship and Rita Teixeira da Costa for an EPSRC New Investigator Award. Tim Gowers, Jason Miller and Jack Thorne are all co-recipients of Frontier of Science Awards at the 2025 ICBS in Beijing. Benedikt Loewe won the Faculty Lecturing Prize, and in the University-wide Professional Services awards Sally Baume was recognised for her amazing contributions on behalf of our summer research students, visiting students and more. There are surely many things missed in the above, for which apologies to those sleighted!

**Farewells** to Gabriel Paternain, who has taken early retirement from Cambridge but remains a Faculty Member at University of Washington and a Life Fellow at Trinity (so with luck we may occasionally see him still); Gabriel made a huge variety of contributions here, not least as an outstanding Head of Department, and will be very much missed. Farewell and good luck also to recent appointee Jeremy Hahn who moves to a tenured position at MIT.

Prepare to **welcome** (from October) Pierre-François Rodriguez, joining as Professor of Probability, and Sungkyung Kang, joining as Assistant Professor in low-dimensional topology; we also recruited Samir Canning as an Assistant Professor in algebraic

geometry, who will join the department in October 2026 after spending one more year at ETH. This October we will also welcome Zihong Chen as our incoming Herchel-Smith fellow (symplectic geometry), along with departmental postdocs Ewan Cassidy (spectral theory) and Haochen Qiu (low-dimensional topology and gauge theory), the latter appointments made possible from the generous benefaction from XTX. That benefaction has also played a key role in our ability to recruit a decent cohort of around 20 incoming PhD students for 2025.

Amongst other changes in the professional services staff, Mattijs van den Bergh has also now started as our new IT manager, and James Wilcock has been here nearly a year as our new Facilities Manager: both have (had to!) hit the ground running, and welcome and thanks on both fronts.

**Resource and recruitment** dominated much thinking this year, with a famed and much-discussed 5 percent cut to be taken by all institutions across the University. I think it's fair to say that the impact of this on us is still uncertain, but the department is in good shape, and the School of Physical Sciences is broadly encouraging that we will be able to fill the positions we would hope to fill next year (sorry, no last-minute reprieve for those of you I've asked to be on hiring committees!). In principle we will have two positions in each of Pure and in Statistics (including the long-unfilled Chair of Mathematical Statistics) to try and fill in the coming year 2025-26. Please, everyone, be involved.

The fabled new HR and finance systems which will bring rationality, efficiency and flying porcines are all to be rolled out beyond the coming academic year, conveniently timed with preparations for REF. We shall see.

Besides the XTX donation, which we hope will be renewed for the coming three years (still to be confirmed), we stayed active in **fundraising**, with an event at the remarkable St Pancras Clocktower in London (owned by two alumni, who generously hosted us). This was focussed on raising awareness of and funds for our Summer Research in Mathematics / Cambridge Mathematics Placement programs, which have grown into a significant new aspect of our activity and are of huge appeal to the undergraduates. Many thanks to Dhruv, Holly and Tim who all presented aspects of their involvements with recent summer projects. The event led to nearly 300 k in donations, spread over the coming 5 years, which helps secure the program in the medium term, crucial at a time when we have so many other uncertainties over likely financial pressures. Huge

thanks to Meaghan Annear, lead fundraiser for the School of Physical Sciences, who helped us put this together and who remains enormously active on the Faculty's behalf: there is no doubt that philanthropy is going to be critical to our ability to operate as we would want in the years to come. We will have further events in the coming months, not least some kind of launch event for 'Chimira', the newly envisaged Faculty-wide industry-consultancy initiative, in which Carola Bib-Schönlieb in DAMTP and Sergio Bacallado here in DPMMS are taking leading roles.

**Refurbishment:** the general program is nearly done, with only Pavilion E still to be re-kitted over September. The new roof for central core should get put on over the summer, with much disruption but hopefully a future with a better layout on the roof (more seating, for instance) and the halcyon promise of sitting inside central core without being rained on. Jayne has put together some information on the construction and images of the (potentially quite beautiful) roof-to-be which will be on display in central core and will hopefully give some added resilience for enduring the intervening disruptions. Apologies in advance for inevitable periods of dust and noise. We have new boilers in several of the DPMMS pavilions, and with luck Pavilion E might finally get through a winter with no-one fleeing their office for the welcome of a proximate igloo.

There will be three different refurbishment projects running through Michaelmas term, so for those who use them, car parking spaces will be very squeezed; alternatives are being sought, and we'll communicate more before term starts. There will intermittently be heavy-duty traffic moving through the car park, so everyone should be especially vigilant! All of these projects should be completed by February 2026, so there is an end in sight.

**Smith and Rayleigh-Knight Prizes:** sadly, the next sentence is literally quoted from last year's e-mail. *The University draftsman and Legal Services continue (I hope) to investigate ways we can change the Trust fund terms to allow us to use the discredited 1769 Smith Fund benefaction for prizes for PhD students in new directions.* Sarah Dodd has been of huge help in trying to rewrite the statute and ordinances in a way which will appease the lawyers, and we are hopeful that we are getting closer. Next year, in Easter term, we will run the new-look Rayleigh-Knight Prize, in which PhD students (typically but not necessarily in their 9th term) submit a short summary of a piece of publicly-accessible work and an arXiv link to the relevant paper, and these submissions will be evaluated over the summer: there will just be a handful of 'untiered' prizes, to first approximation one for each of Pure, Statistics, Applied, and Theoretical Physics, and then a couple of extras which will go wherever. The Prize winners will be asked to give

short presentations to the Faculty some time in Michaelmas, and I hope many of you will come and support that initiative.

In a similar vein, the **departmental colloquia** have been truly outstanding, and it would be very good to see more people there. A reminder that we have one each term, in Michaelmas and Lent on the first Thursday (two days after the staff meetings) at 4.00 p.m. In Easter the role of the colloquium is the Mordell lecture, which we try to put at the same time if that is compatible with the lecturer's constraints. Holly Krieger (Michaelmas 2025) and Richard Samworth (Lent 2026) have agreed to give the two internal colloquia for next year.

Finally a few words on some **reforms**, some in the offing and to be implemented already from the start of next year. There is an important one of the latter to report: **we are going to change the way Part III advising works** (this has been discussed with all the current and recent subject advisors, and the administration, and received near-unanimous support). The role of being a part III subject advisor has changed quite a bit, especially around things like co-ordinating PhD admissions, orchestrating sets of essay titles or subjects for the coming year, and part III itself has grown. It makes sense to separate this from the business of meeting all the students in progress interviews to give course advice and help understand, assuage and react to their personal concerns. A single person in a research group seeing 15-30 people can become overwhelming, giving little chance for a given part III student to have a meaningful interaction with their advisor if the advisor happens to be heavily oversubscribed.

So taking a leaf from DAMTP's book, we are going to try their model, in which at the start of next year the Part III students will sign up for a subject area, and then *we will distribute the students across all the UTOs (and willing CTOs) not on leave — so everyone should have 3-5 advisees* rather than some people having dozens. You will see your advisees for their Michaelmas and Lent progress interviews, at least. There will still be subject advisors, and any student can approach them — for instance, subject advisors might co-ordinate sessions to give PhD advice — but students will also have a 'departmental contact' and most people in the faculty will be the contact for a small number of Part III students, either in their own or a cognate subject area (depending on how the numbers fall, some student's contact might be adjacent to their primary interest). I hope this will ease the burden on the advisors, improve the sense of belonging amongst the part III students, and keep as many people as possible overall involved with the part III cohort. We'll send out a slightly more detailed picture of what your role as a 'department contact' will be closer to the start of Michaelmas.

Lots of work from many has been ongoing with course reform, with the restructuring of Analysis and Topology in IB a prime example. Other reforms are coming our way: part II reform's upcoming implementation, the possible loss of Saturday lectures (which would surely have a significant impact on our syllabuses), questions about how we should deal with AI (e.g. its impact on CATAM, or even on course content), and so forth. Watch this space.

What else? Some people will have felt their lives hugely disrupted by events beyond our control, from active conflicts to shifting political currents to supreme court judgements. Collectively we can and must keep the department and the Faculty a safe and welcoming space for everyone.

Thanks as always to Julia and Jayne (and sometimes Edina) for the amazing Tuesday morning teas and the magnificent home-made cakes they bring; to Edina and Kim and everyone else in professional services for all the assistance with grants, costings and hiring; to Sarah and everyone in the education team for sheltering most of us from the untold horrors of compliance, FOI requests, Moodle malfunctions and so much more of the engine running beneath our operation. Special thanks to Ben for being perpetually unfazed by requests for data, context, or common sense when I'm losing my grip; and to Colm-cille Caulfield, who will shortly step down as Head of DAMTP, and whose wisdom and experience and good humour have all proved repeatedly invaluable. Thanks to the very many of you who have come to my rescue with advice, moral support, or just taking on the innumerable duties and responsibilities that help us all keep the ship moving along.

I will be on annual leave from very early tomorrow until July 12th. Looking forward to seeing many of you who are in Cambridge throughout the summer thereafter.

All best,

Ivan