

## June 2026

Dear all,

Having come to the end of another academic year, and in a moment of freshness between heat domes, I thought it would be good to send round an update on various things that have been going on before a hopefully long and restful and productive summer break. Apologies in advance that this became long, despite quite possibly missing most of the important stuff.

**Coming and going:** In Pure, we have appointed new UTOs Dougal Davies (currently at Melbourne), who works in representation theory, and who will join the department in January; and Yang Li, currently a Royal Society URF here, who works in geometric analysis and differential geometry. We say farewell to Dominique Maldague (harmonic analysis, appointed in 2024), who is moving to UCLA. Ulrike Tillmann steps down as Director of INI at the end of the summer, and her replacement will be announced shortly.

We also made two postdoctoral appointments: Louie Bernhardt, working in PDE, will be our new Herchel-Smith Fellow, whilst Mohammed Al-Attar, working in metric geometry and analysis, will be our incoming XTX postdoc. There will also be some new college RFs: I probably don't know of all, but they include Penelope Azuelos (Queens) and Pablo Sanchez Peralta (Emmanuel), both working broadly in geometric group theory. We will have a large starting PhD cohort in 2026, around 24-25 new students across the discipline.

**Congratulations** are in order to many: Julian Sahasrabudhe for the Adams Prize, Perla Sousi for a Whitehead Prize, Mihalis Dafermos for the AMS Bocher prize, Dhruv Ranganathan for both the Faculty Lecturing prize and University Pilkington prize (so much for our careful efforts to disassociate those two so more people could win prizes for teaching!). John Aston, Richard Samworth, Jack Thorne and Wendelin Werner were all elected Fellows of the Academy of Mathematical Sciences. Julian Sahasrabudhe and Richard Samworth will both be speaking at the ICM this summer.

Special congratulations to Sergio Bacallado, Julia Wolf and Rong Zhou on their academic promotions. Well done to both Rita Teixeira da Costa and Zoe Wyatt, who were awarded EPSRC New Investigator Grants (in more or less successive rounds). There will be many other accolades I'm forgetting: apologies!

The **new roof** is finally finished and happily seems to allow in more light and less rain than its predecessor. The Isaac Newton Institute continues to fundraise for its planned new building. Their application for a five million pound grant from EPSRC will be decided in November / December. Their original timeline [starting work on the new building in June 2027 for a period of two years] is very likely to slip.

We held a **fundraising event at the Royal Society** a few weeks ago, with outstanding short talks from Jack Thorne and Julia Wolf (alongside talks from David Tong and Maria Ubiali representing DAMTP), and another dozen or so Faculty in attendance to help entertain the roughly 110 alumni who had signed up to come. Feedback was incredibly positive, and we will aim to make this an annual Faculty event.

Our new **QubeLab** (in Complexity theory and the Mathematical Foundations of AI, joint with DAMTP, and co-Directed by Clément Mouhot) will have its first six PhD student cohort this October (3 students in each department), with further cohorts each of the following 4 years. Please help support this -- there will be some new interdepartmental seminars, and some Qube days with several talks, hopefully of very broad interest. This year around half of our incoming PhD cohort are philanthropically funded, and it should be a priority to everyone to make ventures like the QubeLab a success!

Broader still, there will be the new Rokos School of Government coming into the School of Physical Sciences, and probably opportunities for Statslab (at least) opening up there over the coming year or two.

For **undergraduate teaching**, we seem to be well on track for part II reform in 2027-28, with the draft exam papers (from current and previous lecturers) due by the end of Michaelmas. Thanks to all those who helped bring our section C offering into line with new requirements. We had the first year of a new Topology course in IB and next year have the new short Easter-term Geometry course in IA/IB. Supervision resource continues to be a challenge: please encourage PhD students and postdocs to be involved. Hopefully the Faculty will grasp the mettle of making difficult decisions about what we can really support as time goes on. Later in the summer Mike Tehranchi will step down as Director of Undergraduate Education after three hugely committed years, for which we are hugely grateful: he has shielded all of the rest of us from a vast amount of work. In another direction, Rajen Shah has done a huge amount of work as our new Faculty Admissions officer, for which many thanks.

**AI and the rise of LLMs** has taken up quite a lot of thought. Next year we will include short research discussions / vivas as part of evaluating part III essays; we are thinking about the best future for CATAM; in some areas the impact on research is already significant and causing some students anxiety. Building on a successful (PhD-student-led) Statslab event, **we will have a department-wide discussion session provisionally on the afternoon of July 28th (3-5 p.m. MR3)**, to open up some of these issues: practicalities (this is how I've used AI for admin tasks or latex tasks or research tasks); questions about resource and funding; questions about ethics. I hope it will help us learn from collective experience and sharing anxieties might help some understand how to mitigate them. I will reach out with more details closer to the time: thanks to Tim Gowers, Po-Ling Loh and Oscar Randal-Williams who have helped create momentum around this.

Even more immediately, I remind colleagues that UTOs respectively CTOs have access to 1000 GBP per year respectively 500 GBP per year research funds from the department, and you can draw on those for subscriptions to paid-for versions of ChatGPT, Claude, etc if you wish. The University is already providing site-wide access to a pro version of Gemini [accessible once you're logged into your university Microsoft account]. Some grant funders will also let software costs or research costs on grants be used this way, even if others are reluctant; for now it's probably a matter of ask-and-see.

Whilst **on grants**, if you're thinking of applying for things or have external people wanting to apply to work with you, remember to give the Strategy & Research committee

respectively Edina and the Research Office time to scrutinise and to do the paperwork. Given the heatwave we have just endured, I hope people will reflect a little on the climate crisis and what their best options are for hosting and costing conferences, events, seminars...; maximising local participation and / or train travel is something funders may become more responsive to (or even obligating of).

After several years of service, Richard Nickl and Jack Thorne are stepping down from organising **the departmental special lectures [colloquia, Mordell and Rouse-Ball]**, and that **is being taken up by Julian Sahasrabudhe and Rong Zhou**, to whom many thanks. Please send Julian and Rong your suggestions for 2027 onwards. For the coming academic year everything is arranged: the colloquia will be by Clément Mouhot (Michaelmas) and Tim Gowers (Lent), the Rouse-Ball lecture will be by Kurt Johansson, and the Mordell lecture will be by Giuseppe Savaré (who will also give a lecture in a special 'Qube day' of events for the QubeLab). Please do come along and support these, in particular the colloquia which take place on the very first Thursday of Michaelmas and of Lent. **On Thursday 5th November, we will also have an afternoon of short presentations by the (probably six) prizewinners of our new-look Faculty-wide Rayleigh-Knight essay/thesis paper prizes.**

I believe Dhruv Ranganathan and Julia Wolf continue to consult the department about **succession planning**, so don't yet have an update (perhaps you all know more than me). The School of Physical Sciences will start their formal process in Michaelmas, and will doubtless find new and imaginative ways of persuasion. DAMTP has two deputy heads and two heads of research groups; Physics has just appointed 3 deputy heads; MSM has 4 deputy heads; Chemistry is appointing two people as joint head from October. We have become an outlier in not distributing responsibility more explicitly in this fashion. I encourage you to chat amongst yourselves and think about what the right way forwards for DPMMS might be.

The HE sector as a whole in the UK is under financial pressure. The SPS departments have broadly survived a five percent cut by eating into reserves, and postponing difficult decisions. The University's vaunted new finance system Oracle Fusion comes on line in May, part way through the coming academic year as part of 'Enhanced Financial Transparency'. Exactly how much money we have in the future seems to be a constantly moving goalpost. But this does mean that there will be many strategic opportunities (and key decisions) coming up for a future HoD to engage with :-). It won't be boring.

Finally, thanks to Julia, Jayne, Edina and Sally for all the cakes, and all the support for our visitors and our summer students and for our events; to Sarah and all her team for endless support in all matters educational; to Meaghan for her efforts on the fundraising front; and above all to Ben and Julia for support and advice across the board.

Have a very good start to the summer, and I hope to see many of you soon.

Best, Ivan

Ivan Smith

Head of DPMMS