

FACULTY NEWS BULLETIN

20 January 2022

ANNOUNCEMENTS



PhD Approvals

Many congratulations to the following students who have recently completed their PhD's:

Simon Becker	DAMTP	Spectral gaps for many-particle systems, semiclassical analysis of graphene, and quantum dynamics
Roland Bittleston	DAMTP	Integrability from Chern-Simons Theories
Philip Boyle Smith	DAMTP	Conformal Boundaries, SPTs and the Monopole-Fermion Problem
Hannah Earley	DAMTP	On the performance and programming of reversible molecular computers
Matteo Giordano	DPMMS	Asymptotic theory for Bayesian nonparametric inference in statistical models arising from partial differential equations
Katherine Grayson	DAMTP	Triadic Resonance Instability in finite-width internal gravity wave beams
Daniel Heydecker	DPMMS	Kac's Process and Some Probabilistic Aspects of the Boltzmann Equation
Antoine Jego	DPMMS	Thick points of random walk and multiplicative chaos
Kirill Kalinin	DAMTP	Unconventional Computing platforms and nature-inspired methods for solving hard optimisation problems
Maeve Madigan	DAMTP	Effective Field Theories for Physics Beyond the Standard Model
Jose Paiva Miranda de Sequeira	DPMMS	Tripod models of internal set theory
Edward Walton	DAMTP	Solitons and dualities in 2+1 dimensions

Congratulations to Ailsa Keating who has been awarded a [European Research Council \(ERC\) Starting Grant](#).

Scientists have shown how the freezing of a 'slushy' ocean of magma may be responsible for the composition of the [Moon's crust](#). The scientists, including DAMTP's Jerome Neufeld, have proposed a new model of crystallisation, where crystals remained suspended in liquid magma over hundreds of millions of years as the lunar 'slush' froze and solidified. The [results](#) are reported in the journal *Geophysical Research Letters*.

NRICH Update

The Faculty's NRICH maths outreach team has recently published an exciting new set of resources and Live Problems suitable for younger family members and schools. School-aged family members are warmly invited to explore the Live Problems and share their solutions with the NRICH team - the deadline for them to submit their solutions for possible publication on the NRICH website is January 31st.

The tasks in the primary feature [Proof Through Words](#) help develop young children's understanding of what constitutes a convincing proof, so they are well equipped on their mathematical journeys.

The problems in their [Proof for all \(st\)ages Feature](#) offer older school students the chance to explore number patterns and create rigorous proofs to show that these are always true.

Meanwhile, if you have any family members in Y12 who might be interested in studying mathematics at university, it's the ideal time for them to begin working on the [Foundation Modules](#) developed by the STEP Support Programme.

If you have anything you would like to be included in the next News Bulletin please send details to newsbulletin@maths.cam.ac.uk by Wednesday 26 January 2022. **The next issue will be published in W/C 31 January.**

In December, Zoe Wyatt, Herchel Smith Fellow in DPMMS, lectured a 3 week MSc course on PDEs at [AIMS Rwanda](#).



EVENTS

Developing the Disabled Staff Network: Focus Group

25 January, 4.30-5.30pm

A conversation going into the detail of how the University can best support members and potential members of the Disabled Staff Network.

If you would like to take part, please book [here](#).

Race Awareness - Open Session

22 and 24 February, 11-12pm

The session helps to increase the understanding of systemic racism and race. It encourages participants to reflect on their own identity, building confidence to speak about race and the capacity to challenge racism.

The training will be split into two 1h sessions, please only [book](#) if you can attend both sessions.

GENERAL INFORMATION

CMS COVID-Protocol Update

Please be aware that a short update on COVID-secure working at CMS following the recent Government and University guidelines is in place. The CMS COVID Protocol remains the basis for our use of the buildings and everyone on site is expected to be familiar with the [current version](#).

A brief summary of the latest advice is as follows:

- Currently, the Faculty is planning for face-to-face teaching delivery in Lent Term.
- It is **EXPECTED** that face-coverings will be worn **AT ALL TIMES** by students in **ALL** teaching settings (except where exemptions apply). In-person seminars, examples classes and group meetings are expected to adhere to the same rules including wearing face-coverings and practising social distancing.
- The use of face coverings is **EXPECTED** for all categories of staff and students when moving around indoors at CMS.
- As per the latest Government advice **Higher Education COVID-19 operational guidance** there is an expectation that those involved in face-to-face teaching, researchers (postdocs and PhD students), technical and lab staff who support teaching & research as well as facilities staff should continue to attend the CMS in person (where possible) and are exempt from the working from home policy.
- Staff who are able to work from home (e.g. administrative staff who are not involved in the delivery of face-to-face teaching) are expected do so where possible.

In general, please try to minimise the frequency and length of contacts while following social distancing at all times.