

ACADEMIC NEWS

DAMTP:

Nick Manton recent comments on a study which suggests that structures called skyrmions might help scientists untangle the inner workings of atomic nuclei have been featured in [Science News](#) and [Tech Explorist](#).

Helen Mason has recently visited IUCAA, Pune, in India for a couple of weeks doing some solar research, outreach with schools and giving a public lecture. She visited the solar group led by her colleague Professor Durgesh Tripathi, who spent many years working with her at DAMTP. Her last graduate student, Sargam Mulay, is also now at IUCAA working as a postdoc. One project the group is working on is an instrument for the satellite called Aditya-L1 which will be flown in 2020, India's first mission to study the Sun.



Keith Moffat has recently been awarded the 2018 Fluid Dynamics Prize of the American Physical Society at the opening ceremony of the APS/DFD meeting in Atlanta, for "*profound, elegant and lasting contributions to fluid mechanics, including turbulence, Stokes flows, topological fluid mechanics, interfacial flows, and self-similarity*".

The Faculty would like to extend their congratulations to the following students who have recently completed their PhD's:

- Benjamin Barrett (DPMMS)
- Lawrence Barrott (DPMMS)

DAMTP ACADEMIC VISITORS

The following academics will be visiting DAMTP:

Visitor	Host or Research Group	Dates of visit
Francesco Leone	Giulio del Zanna	26/11/2018 – 30/11/2018
Marina Giarrusso	Giulio del Zanna	26/11/2018 – 30/11/2018
Kedron Silsbee	Giulio del Zanna	26/11/2018 – 30/11/2018
Piotr Kopszak	Michal Studzinski	27/11/2018 – 05/12/2018
Katharina Schratz	Arieh Iserles	27/11/2018 – 01/12/2018
Tim Hurst	Carola-Bibiane Schönlieb	30/11/2018 – 07/12/2018
Angela Capel	Nilanjana Datta	03/12/2018 – 07/12/2018
Shuai Liu	Carola-Bibiane Schönlieb	08/12/2018 – 07/12/2019

ANNOUNCEMENTS

David Crighton Fellowship Competition 2019

The David Crighton Fund was set up in memory of the late Professor David Crighton, FRS, to provide support for young scholars in his research field, i.e. the subfield of applied mathematics concerned with fluid mechanics, acoustics, waves and vibration. The managers of the Fund are accordingly offering *up to four David Crighton Fellowships* for:

- *Research students* in the second half of their PhD
- *Postdoctoral fellows* with no more than three year's postdoctoral experience in these areas to undertake a visit for two to three months' study and research *either* in Cambridge if they are currently based outside Cambridge, *or* elsewhere if they are currently based in Cambridge. Those based elsewhere may visit a suitable department in Cambridge. The award is to be used to cover actual travel and subsistence expenses; the maximum amount of any one award is currently £3,800.

Applications should include:

- A brief curriculum vitae
- A one page description of the candidate's research topic
- A statement of benefit that can be expected from the proposed period of study
- A letter from the proposed senior host stating that he or she agrees to accept the candidate to study with them between specified dates, countersigned by the host's Head of Department
- A detailed statement of expected travel and subsistence expenses.
- The names, addresses, telephone numbers and e-mail addresses of two academic referees. Applicants should ask their referees to send letters of recommendation, to include details of their assessment of the applicant's suitability for a David Crighton Fellowship, including the benefits they are likely to gain from their visit. Recommendation letters should be sent directly to the Head of Department's Secretary – see below.

Under normal circumstances, it would be expected that fellowships would be taken up within 12 months of the successful candidates being notified of the outcome of the competition; and it is expected that candidates will normally come from a Department of (Applied) Mathematics, Engineering, or Physics.

Applications and references should be sent to the Head of Department's Secretary *by Thursday 31st January 2019*:

Head of Department's Secretary, Department of Applied Mathematics and Theoretical Physics, Centre for Mathematical Sciences, University of Cambridge, Wilberforce Road, Cambridge CB3 0WA.

E-mail: hod-sec@damtp.cam.ac.uk

Full details will shortly be advertised on the [DAMTP Vacancies website](#).

EU Settlement Scheme Pilot briefings: Recording now available

In Michaelmas Term 2018 the University ran a series of briefings on the new EU Settlement Scheme, one of which was recorded. The briefings provide guidance on how to apply through the scheme for settled or pre-settled status and can be [viewed via this link](#).

EU CITIZENS SETTLED STATUS PILOT



You can apply early
Universities are participating in a pilot to test the application process before it launches to the public in March 2019.

If you are an EU citizen, or a family member of an EU citizen, and you are a member of staff at a university in the UK, you can apply to the EU Settlement Scheme in this pilot.

To apply, you will need to register your email address at eusettlementpilot@homeoffice.gov.uk

For more information on the EU Settlement Scheme visit www.hr.admin.cam.ac.uk/hr-services/immigration/eea-staff-and-immigration-options

 HM Government

Revolutionizing Medicine through Machine Learning **PHD STUDENTS**

Mihaela van der Schaar (John Humphrey Plummer Professor of Machine Learning, Artificial Intelligence and Medicine) is looking for PhD students with a background in mathematics, statistics, computer science or engineering to join the new *Machine Learning and Artificial Intelligence research group*, to conduct original research on machine learning, statistics, and artificial intelligence for revolutionizing medicine. Rather than apply off-the-shelf methods they develop new theory and build new models in areas such as deep learning, causal inference, graphical models, statistical machine learning, ensemble learning, learning from time series data and reinforcement learning. The research on personalized medicine and on medical decision support system involves collaboration with medical doctors and researchers from Cambridge, Oxford, New York University, University College London, University of Bologna and UCLA, specialized in cancer research and treatment, cardiovascular diseases, cystic fibrosis, emergency medicine and surgery.

The group believe that this will change the way in which medicine is practiced today. No knowledge of medicine or biology is required. Interested candidates should email Mihaela van der Schaar directly. More information about her research can be viewed here: <https://www.youtube.com/watch?v=RfK3D5dJV2Q>, <http://medianetlab.ee.ucla.edu/NewWebsite/>

EVENTS

CMS Christmas Party - Reminder Friday 7th December

If you haven't already done so please register to attend by clicking on the email invite **before Friday 30th November**.

To assist with the cost of the party this year a small charge of £5.00 per adult attendee is being made which must to be paid to CMS Reception ahead of the night. Wristbands will be issued upon payment (festival style) which also serve to assist the caterers.

Any help you could offer either before or on the night would be greatly appreciated. We need volunteers to decorate one of the Common Rooms (Grotto style), wrap gifts and serve mince pies, mulled wine and cider at the beginning of event.

Please email christmasparty@maths.cam.ac.uk if you can help.



The 145th European Study Group with Industry (ESGI)
8-12 April 2019

Across a five day workshop, the ESGI brings mathematicians and industrialists together working side by side to solve the real and important issues that companies are facing today.

<p>Companies</p> <p>Present your problem and benefit from mathematical analysis and insight to develop practical solutions.</p>	<p>Academics</p> <p>An opportunity to work with industry and come up with new ideas and potential solutions for real problems.</p>
<p>Location</p> <p>Centre for Mathematical Sciences University of Cambridge Wilberforce Road Cambridge, CB3 0WA</p>	<p>Registration</p> <p>Pre-registration is open at: https://tinyurl.com/ESGI145PreReg Early Bird opens mid Jan 2019. For more information visit www.esgi.org.uk or contact esgi@cam.ac.uk</p>

GENERAL INFORMATION

Changes in Administrative Staff

New starters:

We are delighted to announce that Miss Caroline Kemp has recently joined DAMTP as a new Laboratory Research Technician. Her contact email is clk40@cam.ac.uk, and she will be based in H0.08.

Faculty Board - Student reps

The following 3 student reps were elected onto the Faculty Board on Thursday 22nd November 2018:

- Carina Letong Hong (PET) - Undergraduate (lh636)
- Jia Wang (PET) – Undergraduate (jw2054)
- Zechen Zhang (W) – Graduate (zz380)

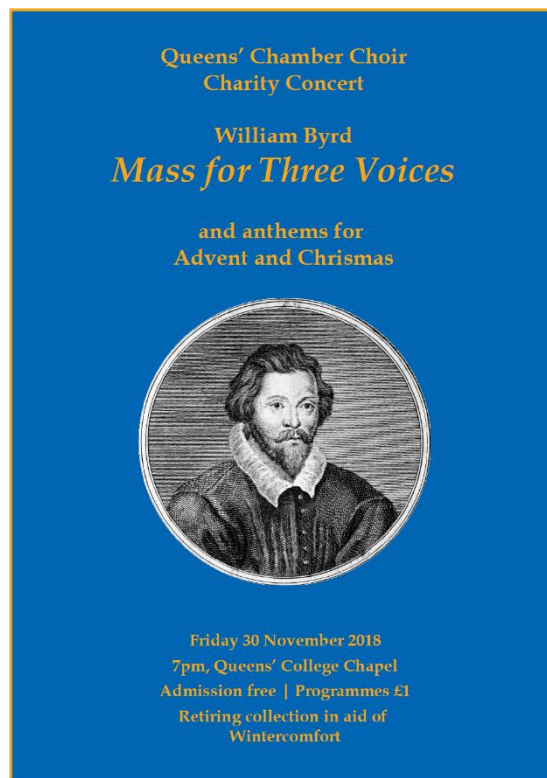
Charity Christmas Concert

Friday 30th November, 7.00pm, Queens' College.

Members of DAMTP are participating in this concert at Queens' College and they would like to invite members of the Faculty to come along to enjoy it. There will be a retiring collection for Winter Comfort.

Broadcasting work experience opportunity – with The Naked Scientists PHD STUDENTS

The Naked Scientists are a team of science radio and podcasting professionals who make engineering, science and technology radio programmes for broadcasters internationally, including BBC 5 live, ABC Radio National Australia and Talk Radio 702 in South Africa. They are offering up to 3 paid internship placements for early career researchers working within engineering and the physical sciences at Cambridge University, to join their team and learn to do what they do. Across eight weeks there will be an opportunity to learn how to produce podcasts, create content for national and international radio broadcast, interview leading scientists publishing new discoveries in the world's best science journals, as well as ways to uncover, research and write accessible engineering and science articles and develop skills as a communicator. Critically, they are not just looking for future broadcasters, as the skills learnt will be valuable throughout future careers. This opportunity is open now and will extend to those who have finished their research, or will have finished their research by 31st January 2020, but have not yet graduated. To be eligible, you must be an EU national and the eight weeks internship must take place between the date you finish your PhD and before you graduate. If you are interested in applying, please email a covering letter and CV to [izzie Clarke](mailto:izzie.clarke@cam.ac.uk) by Sunday 9th December 2018, stating when your research ends.



LOCAL ENVIRONMENT AND SUSTAINABILITY

Bulb planting around CMS

On Sunday 11th November, in liaison with the North Newnham Residents Association, Mick Young met with several local residents and planted some 1100 bulbs, mostly tête à tête daffodils and English Bluebells, in Clarkson Road and the lane between Madingley Road and the CMS site.

On the following Thursday lunchtime another 400 bluebells were planted by CMS staff in a small wooded area within the CMS site. The cost of the bulbs was covered by CMS as part of a dedicated budget for Green Impact initiatives. This was the second year CMS have been involved with this and now some 2500 bulbs in total have been planted. This initiative is greatly appreciated by our neighbouring residents.

