

School of Mathematics Community

Part of
THE EPS COMMUNITY



Spring 2016

Greetings

As you will see from this newsletter it has been an award-winning few months in the School of Mathematics. I am excited to announce that Professor Daniela Kuhn has been awarded an EPSRC Established Career Fellowship in “Combinatorics, Probability and Algorithms” and that Dr David Smith has been awarded an EPSRC Healthcare Technologies Challenge Award for his research into rapid sperm capture. I’m sure we will hear more about their work in the near future.

Our students have also been incredibly active with MathSoc raising over £1,800 for charity in February alone. They have also organised several trips, the much-anticipated MathSoc Spring Ball and an Engineering and Physical Sciences University Challenge which saw students from across the College test their general knowledge and compete to be crowned victorious. They are thoroughly deserving of one of EPS Societies’ Awards so please do show your support and nominate them.

One final note – it would be great to see as many of you as possible at the forthcoming Alumni Reunion. Like previous years, we are inviting all of our former students to return to campus on Saturday 18 June to reminisce with friends and find out how the University has changed since your time as a student. It would be great to see you there.

As the end of the second semester in the 2015 academic year approaches, I would like to wish you all a pleasant Spring and I look forward to updating you with the latest news from the School and our students in the Summer Term.

With best wishes,

Professor Paul Flavell

Head of School



Maths receives EPSRC Healthcare Technologies Challenge Award

Dr David Smith, Senior Lecturer in Applied Mathematics, has been awarded funding by the Engineering and Physical Sciences Research Council's (EPSRC) Healthcare Technologies Challenge Awards for his research into rapid sperm capture.

Dr Smith's research is looking to develop a new diagnostic test for male infertility based on novel imaging, microfluidics, computing and mathematical modelling.

[FIND OUT MORE >](#)

$$f_2(\xi_1) = \frac{(\xi_1 - a)}{\sigma^2} f_{a,\sigma^2}(\xi_1) = \frac{1}{\sqrt{2\pi}\sigma} \left[\frac{(\xi_1 - a)}{\sigma^2} \right] e^{-\frac{(\xi_1 - a)^2}{2\sigma^2}}$$
$$f(x, \theta) dx = M \left(T(\xi) \cdot \frac{\partial}{\partial \theta} \ln L(\xi, \theta) \right) \int_{\Omega} \frac{\partial}{\partial \theta} \ln L(\xi, \theta) d\xi$$

New generic theory for a class of partial differential equations

Our research into a class of partial differential equations has added up to a new generic mathematical theory for a class of PDEs.

Seven years ago Dr John Meyer was an undergraduate attending lectures given by Professor David Needham. Today he is a lecturer who has co-authored a monograph with his former tutor that establishes a generic mathematical theory researchers around the world have spent decades trying to clarify.

[FIND OUT MORE >](#)

Your Mathematics Reunion

Join us on Saturday 18 June for our annual Mathematics Reunion. Whether you graduated five or 50 years ago we invite you to get together with old friends and former classmates to reminisce and celebrate your experiences and friendships from the University of Birmingham. While we do celebrate milestone anniversaries, all alumni are welcome to attend this special Reunion Day regardless of your graduation year.

Take a trip down memory lane with a tour of the Watson Building and explore our

beautiful campus to see what has changed, and indeed what has stayed the same, since your time at Birmingham. Why not get a group of friends together? We are happy to help contact those you have lost touch with.

50th and Golden Anniversary tickets cost £45 and include a two-course formal lunch. All other tickets are £42 and include a hot buffet lunch. All bookings made before Friday 22 April 2016 are eligible for a £5 early booking discount.



[FIND OUT MORE >](#)



EPS Societies' Awards 2016

Were you a member of a student society during your time at Birmingham? Or have you been impressed reading about the activities of our [current student societies](#)? Why not nominate them for this year's Societies' Awards?

These Awards celebrate the lengths our students go to make the University a better place to work and play. Join our celebrations by



Societies' News

It's been a busy term for our societies! Sarah Graves, President of [MathSoc](#), and the [WISE](#) committee tell us about their activities over the past few months, from industrial events to end of year Balls and introducing their new committees. This term we also welcome four new societies to our community: [Drone Soc](#), [Games Development](#), [SATNAV](#) and [oSTEM](#).

The College of Engineering and Physics Sciences is home to 24 student societies. Each does fantastic

nominating your society for these Awards. Maybe your former society will win the much coveted *Society of the Year*. They need your help!

[FIND OUT MORE >](#)

work to promote employment opportunities, industrial visits, guest speakers and, of course, social events.

[FIND OUT MORE >](#)

News Round-Up

There have been a number of appointments in the School over the past few months. Read a summary of our new staff [here](#).

Resistance is futile: we are developing a two-pronged attack using a novel treatment strategy, guided by mathematical modelling.

Second year students from the School of Mathematics presented their work to business and industry as part of their '[Mathematics in Industry](#)' module.

Professor Daniela Kuhn has been awarded an Engineering and Physics Sciences Research Council (EPSRC) Established Career Fellowship in "Combinatorics, Probability and Algorithms".

Professor Dave Charlton, Spokesperson for the ATLAS Collaboration at CERN, delivered the latest [EPS Distinguished Lecture on the future of the world's largest scientific instrument](#).



Micro-Volunteering Day, 15 April

To mark international Micro-Volunteering Day on 15 April there's a whole range of opportunities to support Birmingham – all in fifteen



Get involved!

There are many ways you can get involved with us:

- Tell us about your career and what you've been up to since

minutes or less.

These bite-sized tasks can have a big impact – from offering advice to students, to sharing your opinion on our website design or celebrating with the University's newest alumni by sending in your graduation memories. In Maths we particularly want to hear what you've been up to since graduating and how your careers have progressed so we can share your stories with our current students.

[FIND OUT MORE >](#)

graduating by completing a

[career profile](#)

- Become a mentor and help support our students
- Share a photograph of yourself in your workplace on [Twitter](#) with #wearebrumalum
- Offer a work experience placement or internship
- Join in [Micro-Volunteering Day](#) on Friday 15 April

[FIND OUT MORE>](#)

Events

[EPS Inaugural Lecture Series](#)

For information on upcoming lectures in the EPS Inaugural Lecture Series please visit our [website](#).

Friday 6 May

[Mathematics in Railway Industry](#)

Join the Birmingham Centre for Railway Research and Education for this free workshop on mathematics in the railway sector, including a technical visit to the newly refurbished Birmingham New Street Station.

Time: 9:30am-6pm

Venue: Gisbert Kapp Building, Edgbaston Campus

Friday 13 May

[Alumni Reception in Singapore with the Vice-Chancellor](#)

Join the Vice-Chancellor, Professor Sir David Eastwood, for an alumni reception in Singapore.

Time: 6:30pm-8:30pm

Venue: The Ritz-Carlton, Millenia Singapore

Tuesday 17 May

[Birmingham Heroes Lecture: Unlocking the immune system](#)

In the fifth Birmingham Heroes lecture, Professor Gary Middleton, Professor of Medical Oncology at the University's Institute of Immunology and Immunotherapy, will present the research and work being undertaken by the Cancer Immunology and Immunotherapy Centre at Birmingham, and how they are developing treatments to protect, harness and enhance the immune system's response to cancer.

Time: 6:45pm-8:45pm

Venue: 10-11 Carlton House Terrace, London

Wednesday 8 June 2016

EPS Societies' Awards

Celebrate with your student society as we recognise their extraordinary achievements with a gala, black-tie evening.

Time: 7pm-11pm

Venue: Edgbaston Campus

Saturday 18 June 2016

EPS Alumni Reunion

As a graduate of one of the nine schools in the College of Engineering & Physical Sciences, you are invited back to campus for a Summer Reunion to get together with your fellow alumni to celebrate your experiences, accomplishments and friendships at the University of Birmingham.

Time: 9.30am-6pm

Venue: Edgbaston Campus

Thursday 23 June London

Professional Network 2016

This popular network is the perfect opportunity to enhance your portfolio of contacts and to meet alumni working in related professions, whilst enjoying wine and canapes.

Time: 6:30pm-8:30pm

Venue: The Royal Academy of Arts, London

Global Alumni Gatherings

The University of Birmingham has alumni groups all over the world organising local events.

A full listing of international events is available on our [website](#). To join a group and see details of upcoming please visit the [webpage](#) and select your location



You have received this email from the University of Birmingham because we believe that it is relevant and of interest to you. If you would like to opt out of receiving further University news via email, please visit [your.bham email](#) or telephone +44 (0)121 414 2773. In order to further tailor the communication we send, all emails are tracked and processed; further information regarding our use of data, is available by looking at our [data protection](#) statement.

Having difficulty viewing this email? A pdf version is available on our [website](#).