

School of Mathematics Community

Part of
THE EPS COMMUNITY



Spring 2018

Greetings from the School of Mathematics. As the academic year is nearing a close I reflect upon our recent successes. Congratulations go our colleagues who have received funding awards: Dr Simon Goodwin received an EPSRC standard grant to study 'the representation theory of modular Lie algebras and superalgebras'. Dr Andrey Kupavskii has been awarded a fellowship from the Swiss National Science Foundation to continue his research entitled 'Designs, intersections, and matchings', devoted to combinatorial questions coming from the field of extremal set theory. Professor Daniela Kuehn has been awarded a European Research Council Advanced Grant, valued at €1.8M to study "Extremal Combinatorics: existence, counting and typical structure" with Professor Deryk Osthus as co-investigator.

We are delighted to announce the [appointment of Professor Marta Mazzocco](#) who has joined our Geometry and Mathematical Physics Group. Professor Mazzocco is a specialist in the area of integrable systems, namely mathematical problems often motivated by mathematical physics that present unexpected beauty. A hugely energetic mathematician, she delivers ambitious and imaginative academic leadership by anticipating research trends.

Other appointments include Dr John Meyer who joined in June and has research interests in applied analysis of nonlinear dispersive partial differential equations (PDEs); Dr Yuzhao Wang started in September and his primary research area is mathematical analysis of nonlinear dispersive PDEs. Dr Robert Leek joined as part of the [Birmingham-Jinan University Joint Institute's](#) flying faculty. His background is in general topology, specifically on convergence properties and structures that characterise these. Dr Sam Johnson was appointed as a lecturer with research focus on the relationship between structure and dynamics; Dr Feng Xu joined the Numerical Analysis Group as a Research Fellow; Dr Michelle Delcourt to the Combinatorics Group in September; and Dr

Zhengliang Liu as a Research Fellow specialising in multi-objective optimisation. A very warm welcome to them all.

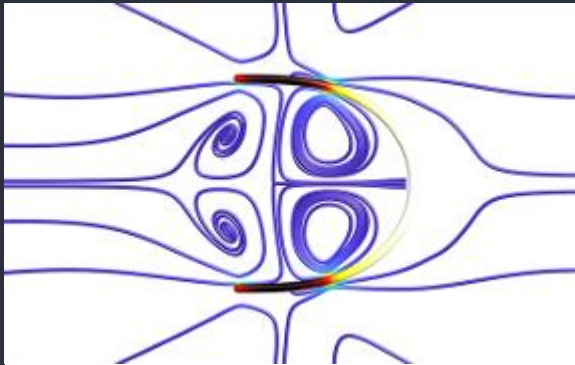
Our students have had a busy year too, even organising the first College-wide sports tournament and a University-wide general knowledge quiz. Their year so far culminating in great success at the University's annual Guild Awards with Curtis Collins, current President of MathSoc, shortlisted for Outstanding Student Representative. They want to continue their winning streak at the College of Engineering and Physical Sciences' annual Societies' Awards, having won 3 trophies at the 2017 event, so please help by [nominating them](#).

As ever, we are always pleased to hear from you about your news and experiences. If you would like to get involved, for example through providing career profiles, mentoring students, offering work placements, providing case studies for our Maths in Industry module, or contributing to outreach events, please do get in touch.

If you are planning on visiting us for the [Alumni Reunion](#) on Saturday 29 September, I look forward to seeing you there and collecting your memories of Maths at Birmingham.

With best wishes

Professor Paul Flavell
Head of School



New transformative research programme

The Engineering and Physical Sciences Research Council has enlisted the support of researchers and Birmingham mathematicians to help deliver an ambitious £6.6 million programme of transformative research.



New integrable systems professor

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[FIND OUT MORE >](#)[FIND OUT MORE >](#)

WE ARE BIRMINGHAM

Our 300,000 alumni all share one thing in common: the University of Birmingham. From recent graduates to industry leaders, you are making important things happen. Join the "We Are Birmingham" project and share your story with those following in your footsteps. You can inspire our students and offer an insight into the vast array of opportunities waiting for them; whatever you're doing, they want to hear from you. Plus, anyone who submits a profile before 1 July will be entered into a draw to win a hoard of University merchandise. Share your Birmingham story and help shape their future.

[SHARE YOUR CAREER STORY >](#)

Simon Singh's Christmas Lecture

Scientist, broadcaster and University of Birmingham honorary graduate Dr Simon Singh delivered the 2017 EPS Christmas Lecture. Our scientific journalistic society SATNAV had the pleasure of meeting him during his visit.

[FIND OUT MORE >](#)

Mary Lee Berners- Lee obituary

We were sad to learn of the passing of alumna and renowned computer scientist Mary Lee Berners-Lee in October. During her lifetime she led a successful campaign for equal pay for programmers, two decades before the Equal Pay Act.

[FIND OUT MORE >](#)

University Reunion 2018

The Alumni Reunion 2018 is a great opportunity to rediscover what made Birmingham "home" for you and renew your lifelong connection to this special place. Reconnect with friends and classmates and see how Birmingham has grown into the university it is today. Join us for a day of celebrations including campus tours, stress-free lectures, a chance to visit some of the latest additions to campus such as the new Library, Sports Centre and Collaborative Teaching Laboratories, and plenty of time to reminisce. In the morning you will visit us in the School of Mathematics and hear how we have changed since you were last with us. You never know there may be some familiar faces there with you!



[FIND OUT MORE >](#)



Society news: a great year MathSoc!

There are now four student groups in Maths: [MathSoc](#), [WISE](#), [oSTEM](#), and [SATNAV](#). Each does amazing work to make sure everyone feels part of our school community.

The College of Engineering and Physics Sciences is home to 29 societies. It's been an amazing year of careers activities, volunteering, competitions and, of course, social events so there's plenty to tell you.

[FIND OUT MORE >](#)

EPS Societies' Awards 2018

Were you a member of a society? Wish you had been? Or have you been impressed reading about our [student groups](#)? Why not nominate them for an EPS Societies' Award.

These Awards celebrate the lengths our students go to make the University a better place. Join our celebrations by nominating your society; maybe they'll win the much coveted *Society of the Year* trophy.

[NOMINATE >](#)

News Round-Up

Professor David Phillips, alumnus and Past President of the Royal Society of Chemistry, delivered the latest [EPS Distinguished Lecture entitled "Light Up Your Life"](#).

Two [Nobel Prize-winning mathematical physicists have received honorary degrees](#) from the University of Birmingham.

Using mathematics to treat male infertility might seem rather unlikely, but postgraduate student Gemma Cupples has [extended classic mathematical models](#) to create a way to study the swimming behaviour of sperm that could lead to better conception rates.

Professor Chris Good takes us to [infinity and beyond](#) in his inaugural lecture.

Birmingham mathematician Dr Meurig Gallagher [takes his research to Parliament](#).

Professor Paul Flavell shares his inspirations from [Einstein, Star Trek, and Gauss](#) in his inaugural lecture.

The UK's world-class expertise in the research of biofilms has been recognised through the [launch of the new National Biofilms Innovation Centre](#).

From the many inspiring research projects across the University, we've selected three that have the potential to change lives. Which one is your favourite? [Vote for the project you're passionate](#) about and the University will fundraise for the winner over the next year.

Events

A full list of alumni events, including Reunions and Global Gatherings, is available online. Here are just a few events coming up in the School of Mathematics and the College of Engineering and Physical Sciences:

Wednesday 6 June

[EPS Societies' Awards](#)

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

Time: 7pm-11pm

Venue: Great Hall, University of Birmingham

Wednesday 4 - Saturday 7 July

[5th UK-CN Steel Research Forum](#)

The UK-China Steel Research Forum is a well-established biennial academic conference for steel researchers across the UK and China, with support from major steel-making companies, steel research institutions and research funding bodies from both countries. This year's conference will be held in conjunction with the 16th Conference of Chinese Materials Association in the UK on Materials Science and Engineering.

Sunday 26 - Thursday 30 August

[EuroBic14](#)

The European Biological Inorganic Chemistry Conference (EuroBIC) series has become a highly established international meeting. Attracting scientists from all over the world, EuroBIC provides the major platform to present and discuss the latest developments in all fields at the interface between Inorganic Chemistry and the Life Sciences.

Wednesday 19 September

[London Mathematical Society Popular Lectures](#)

We are proud to begin the 2018/19 Birmingham Popular Mathematics Lecture series with the London Mathematical Society Popular Lectures, which are suitable for all who have an interest in Mathematics, presenting exciting topics in mathematics and its applications.

This year Katie Steckles (Maths's Greatest Unsolved Puzzles) and Jennifer Rogers (Risky Business) will be speaking

Time: 6:30-9pm

Venue: Bramall Music Building, University of Birmingham

Saturday 29 September

[University of Birmingham Alumni Reunion](#)

Join us for the big Anniversary Reunion on Saturday 29 September 2018. Whether you're celebrating your 50th anniversary or your 5th anniversary, come back to the Edgbaston campus and celebrate your University with staff, students and fellow alumni.

Time: 10am-5pm

Venue: University of Birmingham, Edgbaston Campus

Monday 29 July - Friday 2 August 2019

British Combinatorial Conference

The University will host the British Combinatorial Conference. More information about the conference will be published soon.



You are in control of your data. We want to stay in touch with you and keep your information in accordance with your wishes. You will be kept updated with news from our campus, including research, educational activities and courses, events, alumni activities, and opportunities to support our fundraising. Depending on [your preferences](#), you will receive communications via post, email, telephone and social media. We would like to ensure that our interactions with you are appropriate and cost-effective. We will pay attention to your responses (including e-tracking) and, from time to time, may use your data for profiling, targeting, and research purposes. Your information will be [held securely](#) by the University of Birmingham and will only be made available to our academic & administrative departments, recognised alumni groups, and trusted agents acting on behalf of the University. Information on how your data is held and used is set out in our [Data Protection Statement](#). If you wish to opt-out of any contact or have any questions about your personal data, please [contact Luke McGarrity](#). For reference, our Inland Revenue Charities reference number is X7237.