

## School of Mathematics Community

Part of  
THE EPS COMMUNITY



### Spring 2017

Greetings from the School of Mathematics. As the academic year is nearing a close I reflect upon our recent successes. Congratulations go to four members of the School for recently being awarded funding by EPSRC. Nikolaos Fountoulakis has been awarded a 3-year EPSRC grant on 'Dynamic models of random simplicial complexes'. Yulii Shikhmurzaev has received a grant, joint with the University of Warwick, concerning 'Darcy-scale dynamics of microscopically fluctuating interfaces', with Natalia Petrovskaya as a co-investigator on the project. Qianxi Wang has been awarded a grant, which is held jointly with the School of Dentistry, on 'Maximising cavitation to clean dental implants'. David Craven has also recently had his Royal Society University Research Fellowship extended by three years. Congratulations to all!

It is with great sadness that we report the death of our colleague Dr Anton Evseev who passed away unexpectedly in February. Anton was a talented and dedicated academic who contributed much, both to the world of mathematics and the School of Mathematics. He will be missed by us all.

In January we were honoured to welcome Professor Robin Wilson to give a Popular Maths Lecture to a packed audience on 'The Story of  $\pi$ '. Also this term Jonathan Meddaugh gave a popular lecture on 'Origami and Mathematics' and Allan Lo gave a lecture on 'Sudoku - a special Latin square'.

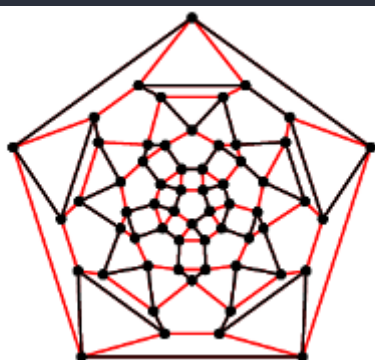
Our students have had a busy year too, culminating in great success at the University's annual Guild Award with Heather Collis shortlisted for Best Student Rep, Calum Ridyard winning the Outstanding Individual Contribution Award, and MathSoc themselves were named Most Improved Student Group! They want to continue their winning streak at the College of Engineering and Physical Sciences' annual Societies' Awards so please help by nominating them for an award.

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 or contributing to outreach events, please get in touch.

If you are planning on visiting us for the EPS Societies' Awards on Wednesday 7 June or the Alumni Reunion on Saturday 30 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



## 1-factorization and Hamilton decomposition

Should you ever yourself find organising a football tournament in which every team must play each other just once, here's a tip: you don't need to worry about the schedule until halfway through the contest.

In combinatorics – where half-solving a problem is considered a feat – our young researchers have solved not one but three long-standing problems.

[FIND OUT MORE >](#)

```
3.141592653589793238462643383279
5028841971693993751058209749445923
07816406286208998628034825342117067
9821 48086 5132
823 06647 09384
46 09550 58223
17 25359 4081
2848 1117
4502 8410
2701 9385
21105 55964
46229 48954
9303 81964
4288 10975
66593 34461
284736 48233
78678 31652 71
2039091 456485 66
9234603 48610454326648
2133936 0726024914127
3724587 00660631558
817488 152092096
```

## The Story of Pi

From the ancient Egyptians and Mesopotamians, via Archimedes, China and the Middle Ages, to the Indiana court case and the advances of the modern computer age.

Robin Wilson, Emeritus Professor of Pure Mathematics at the Open University and Emeritus Professor of Geometry at Gresham College London, visited the University in January to deliver a Popular Maths Lecture.

[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 experts, aspiring leaders to inspirational movers and shakers, Birmingham alumni are making important things happen. Join the "We Are Birmingham" project and share your story with our students. You can inspire our students and offer an insight into the wealth of opportunities available to them. Plus, anyone who submits a profile before 1 July will be automatically entered into a draw to win a BrumBag full of University merchandise. Share your Birmingham story and help shape their future.

[SUBMIT YOUR WE ARE BIRMINGHAM PROFILE >](#)



## Alumni Spotlight

Sarah Graves (BSc Mathematics 2016) reflects on her time at Birmingham and tells us what she's been up to since graduating.

If you would like to share your story we would love to hear from you.

Simply fill complete our [online career profile form](#) or [email us](#) to tell us more.



## Microvolunteering

On Saturday 15 April we marked Microvolunteering Day with a range of bite-size activities that support the University in 15 minutes or less.

Thank you to those who volunteered. If you didn't but would like to, there's still time!

In Maths we particularly want to hear how your careers have progressed so we can share your stories and help inspire our students.

[FIND OUT MORE >](#)

[FIND OUT MORE >](#)

## University Reunion 2017

The Alumni Reunion 2017 provides a great opportunity to rediscover what made Birmingham "home" for you and to renew your lifelong connection to this special place. It's a fantastic time to reconnect with friends and classmates and see how Birmingham has grown into the university it is today. Join us for a day of reunion celebrations including campus tours, stress-free lectures, a chance to visit some of the latest additions to campus such as the new Library, and a plenty of opportunity to reminisce. There will also be time to visit us in the Watson Building to find out how we have changed since you were last with us and to meet some of our current academics and students.



[FIND OUT MORE >](#)



Societies News -  
MathSoc wins!



EPS Societies'  
Awards 2017

There are now four student societies affiliated with the School of Maths: [MathSoc](#), [WISE](#), [oSTEM](#) and [SATNAV](#). It's been a busy year with many events, careers activities, sporting competitions and new committees, so there's plenty to update you on.

The College of Engineering and Physics Sciences is home to 25 student societies. Each does fantastic work to promote employment opportunities, industrial visits, guest speakers and, of course, social events.

[FIND OUT MORE >](#)

Were you a member of a society while at Birmingham? Wish you had been? Or have you been impressed reading about the activities of our [current student groups](#)? Why not nominate them for a Societies' Award?

These Awards celebrate the lengths to which our students go to make the University a better place to work and play. Join our celebrations by nominating your society. Maybe your former society will win the much coveted *Society of the Year* trophy. They need your help!

[NOMINATE >](#)

## News Round-Up

It is with great sadness that we report the death of [Dr Anton Evseev](#), Lecturer in the School of Mathematics, who passed away suddenly and unexpectedly on 21 February.

The University of Birmingham and Jinan University [joint institute was officially unveiled](#) at a ceremony in Jinan University, Guangzhou, China. The Universities have joined forces to nurture mathematical talent in and around South China.

The futurists of tomorrow may have cause to thank Professor Peter Butkovič and Daniel Jones: the two Birmingham mathematicians have [solved aspects of a max-algebra problem that is linked to game theory](#).

Landmark signing provides boost to [Birmingham Life Sciences](#).

Osman Kent, alumnus and serial entrepreneur, delivered the latest EPS Distinguished Lecture entitled "[Success gives you the credibility to talk about your failures](#)".

## Events

**Monday 15 - Wednesday 17 May**

[Pint of Science](#)

Leading University of Birmingham academics will be speaking about their cutting-edge

research. We aim to bring some of the most brilliant scientists to discuss their latest findings with you. You don't have to have any previous scientific knowledge or training, and this is your chance to meet the people responsible for the future of science.

**Venue:** Various locations across Birmingham City Centre

### **Wednesday 17 May**

#### **[Birmingham - Fraunhofer Joint Research Platform Launch](#)**

The University of Birmingham is set to host the Birmingham – Fraunhofer Joint Research Platform Launch to establish closer ties with cutting-edge renewable energy technology in the UK and Europe.

**Time:** 9am-7:30pm

**Venue:** Elgar Concert Hall, University of Birmingham

### **Thursday 18 May**

#### **[Numbers: Professor Paul Flavell's Inaugural Lecture](#)**

Gauss is widely regarded as the greatest mathematician who ever lived. In his doctoral thesis, he proved the Fundamental Theorem of Algebra namely: the output of any non-constant polynomial function can be any number. Professor Flavell will share geometric proof of the Fundamental Theorem.

**Time:** 5:15-7pm

**Venue:** Watson Building, University of Birmingham.

### **Wednesday 7 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

### **Saturday 17 June**

#### **[UBRacing 20th Anniversary](#)**

Team members past and present, and motor sport enthusiasts are invited to join UBRacing in marking their 20th birthday and two decades of Formula Student at Birmingham. Join us for an afternoon of celebrations, take a peek at the 2017 car and be prepared for a few surprises.

**Time:** 1:30-6pm

**Venue:** Edgbaston Campus

### **Saturday 17 June**

#### **[Geotechnical Engineering 60th Anniversary Reunion](#)**

We are delighted to announce that the Geotechnical Engineering masters degree programmes are celebrating their 60th year. To celebrate this notable achievement the University will host Geo60, a celebration and reunion of the programme to which all alumni and interested persons are invited to attend.

**Time:** 9:30am-5pm

**Venue:** Edgbaston Campus

### **Wednesday 28 June**

#### **[Mathematics Taster Day](#)**

The School of Mathematics holds a Mathematics Taster Day for Year 12 pupils in the second half of the summer term. As well as information on studying mathematics at Birmingham, the day will include two sample lectures, a tour of campus and an interactive mathematics session.

**Time:** 9:30am-3:30pm

**Venue:** Edgbaston Campus

### **Tuesday 4 July**

#### **[Engineering Taster Day](#)**

Our Engineering Taster Day is for Year 12 pupils who are thinking about applying to university to study an engineering degree. The day will consist of an introductory talk, a tour of campus, a subject fair and an interactive workshop.

**Time:** 9:30am-3:30pm

**Venue:** Edgbaston Campus

### **Sunday 16 - Thursday 20 July**

#### **[IUPAP International Conference on Women in Physics](#)**

The International Union of Pure and Applied Physics (IUPAP) is delighted to announce that the 6th conference in this series will be hosted by Birmingham, UK. Organised in partnership with the Institute of Physics (IOP) and the Universities of Birmingham, Nottingham and Warwick, the Conference will foster the participation of women in physics and increase diversity in the field.

**Venue:** Edgbaston Campus

### **Wednesday 20 September**

#### **[London Mathematical Society Popular Lectures](#)**

We are proud to begin the 2017/18 Birmingham Popular Mathematics Lecture series with the London Mathematical Society Popular Lectures, which are suitable for all who have an interest in Mathematics, and present exciting topics in mathematics and its applications. In this first event of the new academic year, David Tong (University of Cambridge) and Jason Lotay (University College London) will be speaking.

**Time:** 6:30-9pm

**Venue:** Elgar Concert Hall, University of Birmingham

### **Saturday 30 September**

#### **[University of Birmingham Alumni Reunion](#)**

Join us for the big Anniversary Reunion on Saturday 30 September 2017. Whether you're celebrating your 50th anniversary or your 1st anniversary, come back to the Edgbaston campus and celebrate your University with staff, students and fellow alumni.

**Time:** 10am-5pm

**Venue:** Edgbaston Campus



**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 the alumni office](#).** For reference, our Inland Revenue Charities reference number is X7237.