

UNIVERSITY OF  
BIRMINGHAM

# School of Physics and Astronomy Community

Part of  
**THE EPS COMMUNITY**



## Summer 2015

### Greetings

This year's graduation ceremony was, as ever, a wonderful occasion and it was my great privilege seeing our graduands one by one as they proudly stepped up to shake hands with the Pro-Vice-Chancellor in celebration of their achievements. It is a wonderful time of year on campus as we recognise our students' hard work and see them make the transition to alumni.

As you will see from this newsletter it has been a busy time in the School and across the College: we are part of the [Advanced LIGO Project to detect gravitational waves](#), [Professor Andreas Freise has celebrated his Inaugural Lecture](#), and final year student [Matt Harrison was chosen as one of the University's 12 alumni to watch](#) and I look forward to hearing about his progress into graduate life. In June we welcomed back alumni at our [reunion](#) and we also held our second [EPS Societies' Awards](#), celebrating the fantastic achievements of our student body in delivering an exciting programme of events, projects and challenges over the course of the year as part of their involvement in our societies.

Finally, this is my last contribution to the newsletter as Head of the School of Physics and Astronomy. It has been a privilege to lead the School for the past five years and the engagement with students - past and present - is what makes the role so enjoyable and rewarding. From 1 August I am becoming Pro-Vice-Chancellor and Head of the College of Engineering and Physical Sciences at the University of Birmingham so extending my responsibilities to a further eight other Schools as well as Physics and Astronomy. I am delighted that Professor Martin Freer will be succeeding me as Head of School on 1 August - and wish him every success in the role.

With best wishes,

**Professor Andy Schofield**  
Head of School  
Physics & Astronomy

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## News from the School of Physics & Astronomy

### Congratulations class of 2015!



Congratulations to all of our new Electronic, Electrical and Systems Engineering graduates who received their degree certifications last month. [Read more.](#)

### EPS Reunion 2015 Highlights



Over 140 alumni and guests from 1944 to 2014 attended this year's annual reunion on Saturday 20 June 2015. Guests travelled from as far as Brazil and Jordan to join us and enjoyed a unique opportunity to reminisce with their classmates, revive old friendships and catch-up on all that may have changed in their School. [Read more.](#)

### EPS Societies' Awards 2015



On Tuesday 9 June the College celebrated the achievements of our 17 student societies with the second annual EPS Societies' Awards. From public astronomy events with AstroSoc to designing Formula Student cars with UBRacing, the societies do astonishing work not just in academia but also to promote careers opportunities, industrial visits and, of course, social events. A great night was had by all and over £1,000 was raised for research into childhood brain cancer conducted in the University's School of Cancer Sciences. [Read more.](#)

### Poynting Physical Society update



The PPS committee look back at a busy 12 months for the Society. [Read more.](#)

### NucSoc update



The current and past NucSoc committees look back an incredibly busy few months for the Society. [Read more.](#)

### Women in Science and Engineering Society



It's been a busy year for WISE, who were recently recognised at the EPS Societies' Awards! The committee tell us what they've been up to and their plans for next year. [Read more.](#)

WISE were also recently invited to celebrate National Women in Engineering Day (NWED)

## Matt Harrison chosen as one of our 12 alumni to watch



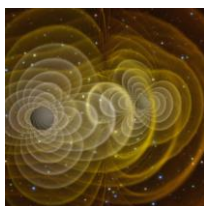
The University's 300,000<sup>th</sup> student graduated this summer and joined our alumni community. To celebrate this occasion we asked staff and students to nominate a student to become our symbolic 300,000<sup>th</sup> alumnus. Due to the volume and quality of nominations we chose an additional 11 students to form our 12 alumni to watch. Final year Physics student Matt Harrison is one of those and we will be following his journey into graduate life. [Read more.](#)

## Why I'm not going to Mars



University of Birmingham PhD student Maggie Lieu made headlines earlier this year when it was revealed she was one of five British people shortlisted for the Mars One mission - a mission to establish a human colony on Mars from 2020. However, Maggie recently announced that she has decided not to go through with the ten year training programme to become a 'Marstronaut'. [Read more.](#)

## Major research project to detect gravitational waves is underway



A research project to detect gravitational waves, minute ripples in the fabric of space and that were predicted by Einstein, was officially launched on May 19, 2015. The Advanced LIGO Project, a major upgrade in equipment that will increase the sensitivity of the Laser Interferometer Gravitational-wave Observatories instruments was opened at a ceremony on Tuesday, May 19, at the LIGO Hanford facility in Washington. [Read more.](#)

## Shining a light on black holes: Revolutionising our understanding of the universe from the dawn of time



Following his recent Inaugural Lecture, 'Shining a light on black holes', Professor Andreas Freise discusses his research on black holes and neutron stars and explains some of the difficulties scientists had to overcome to get to where they are now: on the brink of making new, out-of-this-world discoveries. [Read more.](#)

## On the verge of a new dawn in physics and astronomy



This year marks the hundredth anniversary of Einstein's theory of general relativity. With remarkable timing, the dedication ceremony of the Advanced LIGO (Laser Interferometer Gravitational-wave Observatory) Project was held on 19 May. [Professor Alberto Vecchio](#) explains more. [Read more.](#)

## LHC experiments are back in business at a new record energy



After an almost two year shutdown and several months re-commissioning, the LHC is now providing collisions to all its experiments at the unprecedented energy of 13 TeV, almost double the collision energy of its first run. This marks the start of season 2 at the LHC, opening the way to new discoveries. The LHC will now run round the clock for the next three years. [Read more.](#)

## Controlling nonlinearity in metamaterials



[Professor Shuang Zhang](#) has been interviewed in an article for [nanotechweb.org](#) which explains how researchers have made nonlinear metasurfaces in which they continuously control the phase of the material's nonlinear polarization for the first time. [Read more.](#)

## Pioneering University of Birmingham campaign raises nearly £200m for ground-breaking research and life changing opportunities



The University is celebrating after raising an unprecedented £193.4 million for a diverse range of projects including life-saving research and more than 500 student scholarships. The record breaking Circles of Influence campaign has smashed its original £160 million target and has supported more than 250 projects across campus, including the creation of a new state-of-the-art library and a sports centre featuring the city's first 50 metre swimming pool, which will be accessible to staff, students and the local community when it opens next year. [Read more.](#)

## We want your thoughts!



We are currently reviewing the communications we send to our alumni and would greatly value your comments on your School newsletter. As an added incentive, participants will be entered into a draw to win a University of Birmingham alumni mug. Fill out the survey [here](#).

## New staff in 2014/15

There have been a number of appointments in the School this term. [Read a summary of our new staff online here.](#)

## Your School needs you...

Would you be able to share some of your time, expertise or connections to help our students to succeed?

We are currently looking for help and support from alumni with the following:

- Work experience placements are invaluable for our students, allowing them to learn about the world of work first-hand and apply their knowledge in a real-life setting. If you work in industry and think you could offer a work experience placement to our undergraduate or postgraduate students, please [email us](#)

There are many ways in which you can give a little back, from providing a career profile, to mentoring a student. Please [email us](#) if you would like to get involved and we'll be happy to talk to you.

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## College and School events taking place shortly...

### [EPS Inaugural Lecture Series](#)

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

**Wednesday 8 June 2016**

#### [EPS Societies' Awards](#)

Come and celebrate with our student societies as we recognise their fabulous achievements in 2015/16.

**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 (EPS), 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

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## University events...

**Sunday 6 September 2015**

#### [Community Day](#)

See our research brought to life! Come along to the University's Community Day on Sunday 6 September where you can explore our beautiful, historic campus and enjoy free fun for all the family throughout the day. We are throwing the doors open for you to see for yourselves the great things that the University is doing for people here in the Midlands and around the world. This year's event will celebrate more than £160 million of donations to the University and thank all of our amazing supporters. Follow our thank you trail around campus and discover how donations have funded everything from dinosaur bones and robots to our new sports centre. To find out more about the impact of our Circles of influence campaign, please visit [www.uobpartofit.com](http://www.uobpartofit.com).

**Time:** 11am-4pm

**Venue:** Edgbaston Campus

**Tuesday 8 September 2015**

#### [Hong Kong Reception with the Vice-Chancellor](#)

University of Birmingham alumni based in Hong Kong are invited to join the Vice-Chancellor, Professor Sir David Eastwood, at a reception on Tuesday 8 September. The evening will be a great opportunity to meet and network with fellow alumni who live and work in Hong Kong, and to find out about the latest developments taking place at the University.

**Time:** 7pm-9pm

**Venue:** The Hong Kong Jockey Club

**Saturday 12 September 2015**

#### [Golden and 50th Anniversary Reunion Lunch](#)

If you graduated in 1965 or before you are invited back to campus on Saturday 12 September to a Golden and 50<sup>th</sup> Anniversary Reunion Lunch with your fellow alumni to celebrate your experiences, accomplishments and friendships at the University of Birmingham.

**Time:** 10.45am-4pm

**Venue:** Edgbaston Campus

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## Alumni group events...

The University of Birmingham has alumni groups all over the world that organise local events. To join a group and see details of upcoming events please visit the [webpage](#) and select your location.

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## Do we have the right details for you?

According to our records your current business details are as follows: College Alumni Relations Manager at University of Birmingham. If this is not correct, please visit [your.bham](#) or email [alumnioffice@contacts.bham.ac.uk](mailto:alumnioffice@contacts.bham.ac.uk).

**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 information from your College, School or Department by email, please opt-out by visiting [your.bham](#), emailing [alumnioffice@contacts.bham.ac.uk](mailto:alumnioffice@contacts.bham.ac.uk), or telephoning +44 (0)121 414 2773 / 2744 / 4724. 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](#)