



UNIVERSITY OF
BIRMINGHAM

School of Physics and Astronomy Community

Part of
THE EPS COMMUNITY



Welcome to your 2019 Physics and Astronomy Alumni Newsletter



Greetings from the School of Physics and Astronomy.

This is my first Alumni Newsletter as Head of School after taking over from Martin Freer in July. I've been part of Physics and Astronomy since the 1990s, and even did a previous stint in this seat, so will have come across many of you over the years. For those I've not had the pleasure of meeting yet, I hope to do so soon.

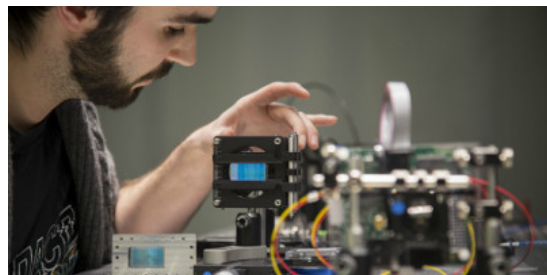
[Read more from Mike Gunn](#)



Where in the Universe can you find a black hole nursery?

Gravitational wave researchers at the University have developed a new model that could help astronomers track down the origin of heavy black hole systems by looking at future detections of multiple generations of black-hole mergers.

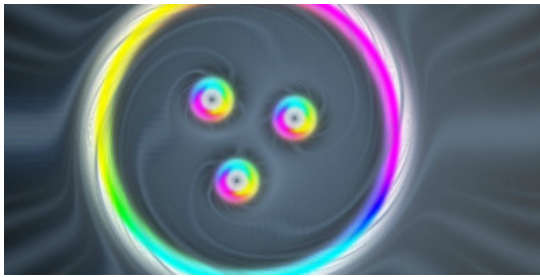
[Find out more](#)



UK Government announces funding for Quantum Tech Hub

The announcement means that the UK Quantum Technology Hub Sensors and Timing, led by Birmingham, will receive £23.5 million to continue the drive to develop real world applications by harnessing the power of quantum physics.

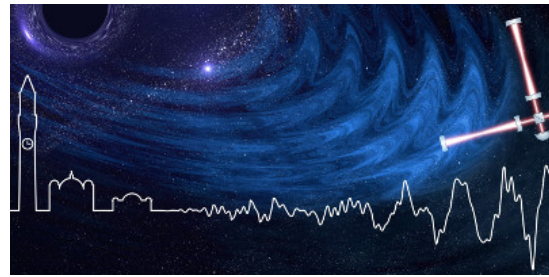
[Find out more](#)



Skyrmions could provide next generation data storage

Physicists have moved closer to developing the next generation of data storage and processing devices using the new science, skyrmionics, which focuses on harnessing properties of nanometer-sized structures in magnetic films.

[Find out more](#)



Astrophysicists investigate new neutron star smash-ups

We are celebrating the new detection of a series of gravitational wave signals, one of which is likely to be caused by the crashing together of two neutron stars, and another that could be the first evidence of the collision of a neutron star and a black hole.

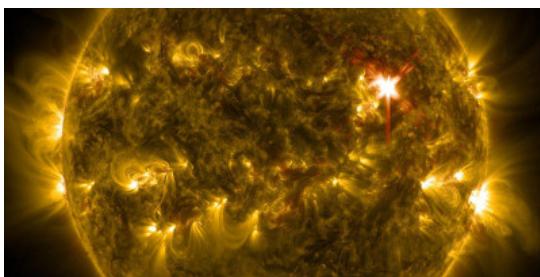
[Find out more](#)



The problem with the plastics problem

Solving the plastics problem will not be easy. It does not have one single and simple solution. The problem is complex and often underestimated. Single use plastics, exemplified by plastic packaging will, and should, never be eliminated completely - to do so would risk other undesirable environmental consequences.

[Find out more](#)



What's the weather like in space today?

It is now 50 years since Neil Armstrong set foot upon the moon. NASA, and several private space companies, have active plans to return astronauts there soon, with the goal of establishing a longer-lasting presence.



EPS Societies' Awards

986 nominations were received to this year's student society awards. We're proud to announce that our AstroSoc won the *Continued Excellence in Outreach Award*, and BEaMS, a society founded by some of our students, achieved the *Diversity and Inclusion Award*. Congratulations everyone!

Find out more

Discover our Award winners



Launch of a brand new website

We're excited to launch to you, our alumni, the brand new EPS Community website; you're the first people to see this! Physics and Astronomy and the College of Engineering and Physical Sciences, in which we are part, has a community of over 85,000 graduates, students, staff and friends. This new site celebrates everything that brings our unique community together and explores opportunities for you to join in. Come along to one of our events, see what our 38 student groups are up to, learn about your fellow alumni, and discover how you could get involved. Let us know your feedback by emailing eps-community@contacts.bham.ac.uk, we'd love to hear from you.

Take a look

WE ARE BIRMINGHAM ALUMNI

Help inspire our students

From recent graduates to industry leaders, you are making important things happen. You can inspire students and offer an insight into the opportunities awaiting them. Whatever you're doing, they want to hear from you. Plus, anyone who submits a profile before 1 November will receive an Old Joe magnet.

[Share your Birmingham story](#)



Professor David Thouless

It is with great sadness that we announce Professor David Thouless FRS, Physicist and 2016 Nobel Laureate for Physics passed away in Cambridge on 6 April 2019 at the age of 84. He was Professor of Mathematical Physics at Birmingham 1965-78 and recently returned to receive an honorary doctorate.

[Read more about David Thouless](#)

MENTORING

Could you mentor a student?

We're looking for enthusiastic alumni and professionals to provide expertise, advice and inspiration to help our students start their careers. Mentoring makes a real difference; we all know the benefits of having someone to bounce ideas off. If you'd like to be that person, please get in touch.

[Email Grace to become a mentor](#)

News roundup

[Global success continues for University of Birmingham](#) in World University Rankings, climbing four places in the 2020 THE Rankings to 112th globally.

Is there a [future for nuclear energy in the UK?](#)

[Busy older stars outpace stellar youngsters](#), new study shows

Gravitational waves observed from [another cosmic collision of a pair of black holes](#).

How to [build a moon base](#).

Scientists [weigh the balance of matter](#) in galaxy clusters.

Professor Kai Bongs has been [awarded this year's Institute of Physics Dennis Gabor Medal and Prize](#).

[What is it that limits or constrains the number of chemical elements we know?](#) The International Year of the Periodic Table, 2019, commemorates the 150th anniversary of the discovery of the Periodic System by the Russian scientist, Dmitri Mendeleev in 1869.

Cristina Lazzeroni, Professor in Particle Physics, is the [winner of this year's Institute of Physics Lise Meitner Medal and Prize](#).

Chemical traces in the atmospheres of stars are being used to [uncover new information about a galaxy, known as the Gaia Sausage](#), which was involved in a major collision with the Milky Way billions of years ago.

Professor Andreas Freise, Professor of Experimental Physics and Deputy Director, Institute of Gravitational Wave Astronomy, along with colleague Professor of Hydrology David Hannah, has been awarded a [Royal Society Wolfson Fellowship](#).

Australian novelist writes about [life at University of Birmingham's solar observatories](#).

Professor Konstantinos Nikolopoulos, along with Chemist Professor Rachel O'Reilly, have received prizes in the [Second Annual Blavatnik Awards](#), which recognises young scientists in the United Kingdom.

Events

[Sustainable civil nuclear power workshop](#)

17 September 2019, 9:30am-5pm
Old Gym, University of Birmingham

[Join In Hong Kong](#)

24 October 2019, 6:30-8:30pm
Asia Society Hong Kong Center, Admiralty,
Hong Kong

[My Life in Maths and Shaping the Brain - London Mathematical Society Popular Lectures](#)

[Careers and Coffee](#)

29 October, 6-8pm
Cherry Reds, Birmingham City Centre

19 September 2019, 6:30-8pm
Bramall Music Building, University of
Birmingham

[Wetting of hydrophobic and
superhydrophobic surfaces workshop](#)

20 September 2019, 10:30-11:30am
G34 Engineering Building, University of
Birmingham

[Book to the Future](#)

18-19 October 2019 The University's
annual festival of the written and spoken
word, featuring free workshops, panel
discussions, performances and author
talks, including:

- [The return of race science, Angela
Saini](#)
18 October, 5:30-7pm
- [From Brum to bakes, Candice
Brown](#)
19 October, 6-7pm

[Join In New York](#)

13 November 2019, 6:30-8:30pm
Four Seasons Hotel, Barclay Street, New
York

[Join In San Francisco](#)

14 November, 6:30-8:30pm
Waterbar, 399 The Embarcadero, San
Francisco

[LGBTSTEMinar](#)

10 January 2020
University of Birmingham

[House of Lords Reception](#)

24 April 2020, 6:30-8:30pm
House of Lords, London

[EPS Societies' Awards](#)

10 June 2020, 7:30-11:30pm
Great Hall, University of Birmingham



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