



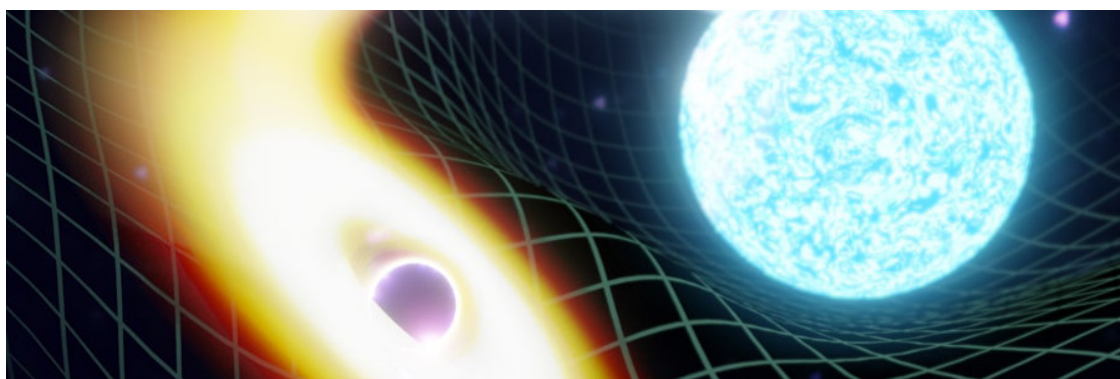
Welcome to your 2021 Physics and Astronomy Alumni Newsletter



Dear Alumni,

Welcome to this year's alumni newsletter, and my first as Head of the School of Physics and Astronomy. I may have taught some of you, and others may remember that I've written a couple of these introductions before. I have been an academic at Birmingham for more than 20 years, and it is a huge privilege to have recently taken over as Head of School. This year has been challenging for everyone, but we're incredibly proud of how our community has come together and continued the incredible education and research that our School is known for.

[Read more from Bill Chaplin](#)



The odd couple: a groundbreaking new discovery from gravitational whispers

Two gravitational wave signals from an entirely new class of cosmic collisions have been discovered by researchers working on the Advanced LIGO and Advanced Virgo detectors.

Each of the signals came from the merger of a black hole with a neutron star.

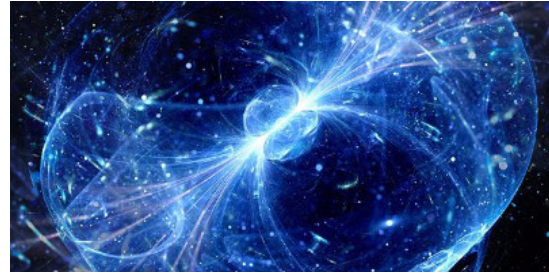
[Find out more](#)



Is the 'Standard Model' of particle physics cracking?

The 'Standard Model' is the status quo in particle physics; a mighty beast describing the fundamental building blocks of the universe that has withstood every test thrown at it in the half century since it was established. Is it now cracking?

[Find out more](#)



Exploring unanswered questions with quantum

The University is a key partner in three quantum technology projects awarded funding as part of a £31 million investment demonstrating how quantum technologies could solve some of the greatest mysteries in fundamental physics.

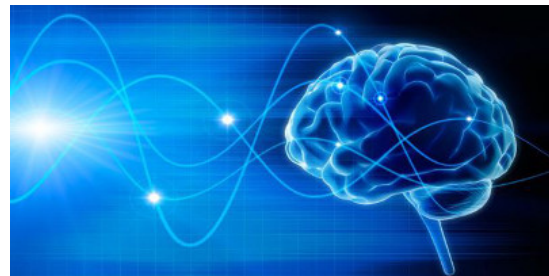
[Find out more](#)



High performance, low cost ventilator project awarded grant of £768K by UKRI

Prompted by the COVID-19 pandemic, an international team of physicists and engineers are developing high performance, low cost ventilators for use in low to middle income countries.

[Find out more](#)



New sensor developed for magnetic brain waves to detect injury and disease

Birmingham physicists have developed a new sensor to measure weak magnetic signals in the brain, which has the potential to increase understanding of connectivity in the brain, and detect signs of trauma.

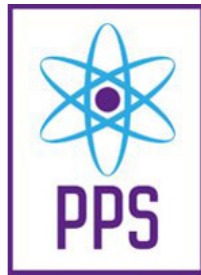
[Find out more](#)



Dating the stars – scientists provide most accurate picture yet

Scientists have succeeded in dating some of the oldest stars in our galaxy with unprecedented precision by combining data from the stars' oscillations with information about their chemical composition.

[Find out more](#)



PPS goes virtual

This has been the strangest year for the Poynting Physical Society but that certainly hasn't stopped them. They've moved online to keep their members connected when it's been needed most. Not to mention hosting a national conference!

[Read what PPS have been up to](#)



An eventful year for AstroSoc

AstroSoc have had a fantastic year online with a new lecture series, international celebrations and games nights. The outgoing committee tell us more about their many triumphs and introduce a new AstroSoc committee.

[Find out more about AstroSoc](#)



Success for our students at the annual Societies' Awards

For the second year running we took the EPS Societies' Awards online to celebrate our remarkable student groups. The celebrations were not halted and watch parties were held across our societies and Schools! We're proud to announce Avery Cunningham won The Great Achievement in EPS Award, and Lex Millins and AstroSoc were Highly Commended for Inspirational Committee Member and the Outreach Award respectively. Congratulations also to the Women in Science and Engineering Society who were named Society of the Year, and well done to all the nominees, shortlisted students and worthy winners!

[Watch the 2021 Virtual Societies' Awards](#)



Joe Martin: Dancer turned



Sunchi Chen interviewed for

space engineer

As a teenager Joe was on the path to become a professional contemporary dancer until he had the opportunity to attend the European Space Camp in Norway. That unique experience set his heart on a career in space, with the promise to keep dance as a hobby.

[Read Joe's alumni profile](#)

PreparationTech

In her interview, Sunchi shares her story of defying the odds to become one of the few Black women specialising in nuclear energy technology. She offers a great insight into her role and her inspirations, and discusses the legacy she wants to create for others wishing to follow her path.

[Watch Sunchi's interview](#)

WE ARE BIRMINGHAM ALUMNI

Help inspire our students

From recent graduates to industry leaders, you are making important things happen. You can inspire young people and offer an insight into the opportunities awaiting them. What will you share?

[Share your Birmingham story](#)

MENTORING

Could you be a mentor?

We all know the benefits of having someone to bounce ideas off, especially when it comes to our careers. Your advice is invaluable. If you'd like to be that person, we'd love to hear from you.

[Email Grace to become a mentor](#)



Seventy graduates take part in 'Meet your alumni' series

In March 2021, the EPS Community launched the first event series aimed at introducing students to Engineering and Physical Science alumni from a broad range of sectors. More than 70 graduates and professionals took part in 'Meet your alumni', each with a different experience to share. In Physics and Astronomy we were joined by six graduates for a speed-networking event with current students where they were grilled on their careers.

[Find out more about the Series](#)

News roundup

[Innovative 'EPS Futures Foundation Year' programme](#) supports young people from underrepresented groups to study STEM subjects.

Researchers confirm [speed, simplicity and sensitivity for new COVID-19 test](#).

On the hunt for ['hierarchical' black holes](#).

Quantum Technology Innovation Hub to [transform local businesses](#).

[Tackling the UK's low carbon heating challenge](#): Professor Martin Freer chairs CBI panel discussion.

Quantum Technology Hub researchers awarded funding for [CCS monitoring research](#).

Scientists hunt for [evidence of 'lensed' gravitational waves](#).

Asteroseismologists confirm that [older stars rotate faster than expected](#).

Building [resilient cities](#) with quantum sensors.

[Supporting students](#) into engineering and physical sciences at Birmingham.

[New hardship grants for students funded by Birmingham graduate](#), Emeritus Professor Barry P Hughes

Do we have the correct contact details for you?

Make sure you update your details to ensure you receive the latest news and information about events in your area. [Update now](#)



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