The Pendulum— Spring 26

Issue 26

Welcome to the spring 2026 issue of the Pendulum. As I write the sun is shining and I am optimistic that the cold, grey and very wet winter may be behind us! Today I was also reminded in the Guardian 2026 University Rankings Warwick Physics has risen three places to sixth overall. This and other top 10 league table rankings are due to the excellence in teaching, high research quality and good postgraduate employability. Concerns about the funding of university physics have found their way into the national press. To quote from an Open letter to the Minister of State for Science, Innovation, Research and Nuclear from UK Heads of Physics Departments, "Physics is a foundational enabler of the priorities set out in the UK's Science and Technology Framework and the Plan for Growth. It underpins progress in semiconductors, quantum technologies, advanced computing, space, green energy, medical imaging, defence, financial services, and artificial intelligence. One in 20 UK jobs relies on physics-related knowledge and skills, and physics-intensive businesses make a substantial and growing contribution to national productivity. Physics underpins the entire innovation pipeline, providing the low-TRL, curiosity-driven research from which future transformative technologies emerge." Physicists know this, but it doesn't hurt to remind everybody else!

Spring term has just come to an end with our final year students completing their research project reports and starting to think about revision. Of course, I wish all our students taking exams after Easter the very best and want to thank all our staff for their amazing efforts in delivering excellent courses, keeping everything running smoothly and making the department so welcoming. As always, this summer looks like it will be very busy and I should remind everybody that we have University Open Days on Saturday 20th and 27th June.

Launched in March 2026, "Set the Pace" is the University of Warwick's most ambitious philanthropy campaign, aiming to raise an initial £250 million and inspire 20,000 acts of volunteering by 2030. Look out for information about events that are coming up over the next few months. I would like to highlight the Warwick Alumni Mentoring programme. Our alumni mentors play a crucial role in helping students and alumni, by sharing insights into their industry and job roles. Students access our exclusive community platform and find a mentor on Warwickgrad using student login details. For more information, including how alumni can join, visit Warwickgrad FAQs. This short video will guide you through some of the ways to connect with and find a Warwick Alumni Mentor. I would encourage all alumni to seriously consider signing up and offering to mentor our current students.

It was with the greatest sadness that we learned of the death of one of the pioneers of the Warwick Physics Department, Professor D. Phil Woodruff, FRS. Phil came to Warwick from Bristol University with the founding Professor, John Forty, as his research student in 1965. See the tribute later in the newsletter, and online.

I would like to congratulate Professor David Leadley who has taken on the role of Warwick's Pro-Vice-Chancellor for Research and is a member of the University Executive Board and Professor Tim Gershon who has been elected the next international Spokesperson for the CERN-based Large Hadron Collider beauty (LHCb) experiment.

As ever, all contributions to the newsletter are welcome! To help us all stay connected please share any items of interest to physicsadmin@warwick.ac.uk.

Best wishes,

M. Dentor

In memoriam: Professor D. Phil Woodruff

It is with the greatest sadness that we learn of the death of one of the pioneers of the Warwick Physics Department, Professor D. Phil Woodruff. Phil came to Warwick from Bristol University with the founding Professor, John Forty, as his research student in 1965. From graduating as the Physics Department's first PhD student, to becoming one of the country's, and the world's, leading experimental surface scientists and, in 2006, he was this Department's first and only Fellow of the Royal Society, Phil remained at Warwick for the whole of his career.

In 1984 Phil wrote *Modern Techniques of Surface Science*, together with Trevor Delchar, another member of the Surface Science group that Phil established and led. Over the years the book has been reprinted in several editions and in different languages, and it remains an authoritative text and essential reading for all new entrants into the field. With the development of VUV and X-ray synchrotron sources, both within the UK at Daresbury Laboratory, and also more widely in Europe and the USA, Phil was an early adopter of these facilities and embraced the use of synchrotron radiation for his research. He spent a significant period working at the BESSY synchrotron in (West) Berlin, specifically working on BESSY I during the 1980's and early 1990's in collaboration with Professor Alex Bradshaw from the Fritz-Haber-Institüt der Max Planck Gesellschaft. That experience shaped much of the surface science work for which he would later become famous. He developed the technique of photoelectron diffraction, applying it especially to small molecules and molecular fragments adsorbed at metal surfaces. He was also internationally regarded for his work in X-ray photoemission spectroscopy, and his contributions to the development of X-ray standing waves and surface X-ray diffraction techniques, experimental methods for collectively determining precise atomic positions at surfaces. Phil's ground-breaking experimental innovations were taken up by research groups worldwide, and he also found time to write and edit a major book series on all aspects of surface structure determination. He jointly led the development of the UK's Medium Energy Ion Scattering facility, also based at Daresbury, which was able to probe both surfaces and shallow buried interfaces, as well as thin film structures. Phil also worked extensively on the development of techniques such as Inverse Photoemission and Low Energy Ion Scattering, all within the Physics Department at Warwick.

After retirement Phil continued to remain research active, writing books on the application of synchrotron radiation to surface science and producing surface structure papers with many collaborators, despite his long-term battle with cancer. Over the 60 years that our department has existed, Phil has been scientifically active throughout all the decades, publishing over 560 papers, several book series; he is without doubt its most prestigious scientist. His memory will live on through the careers of the generations of research students and research fellows that he tutored and led by example, and by those of us who had the privilege to work in the department alongside him.

Written by: Professors Gavin Bell, Malcolm Cooper and Chris McConville.

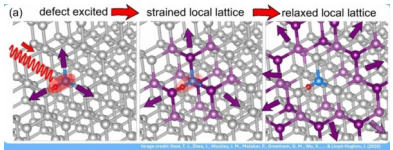
Do you have a story that could be included in the next newsletter? Click here to let us know!

New research stories

European Research Prize recognises breakthrough on the origins of Earth's building blocks

Astronomers Professor Andrew Levan and Professor Danny Steeghs, founding members and part of the key ENGRAVE committees, have been awarded the 'Into Change' award which honours outstanding European research that drives scientific breakthroughs.
The team have shown how the universe's heaviest elements are forged in rare and powerful involving neutron stars, known as kilonovae,

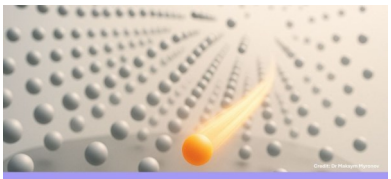
Read the full press release.



Surprising nanoscopic heat traps found in diamond

A team of researchers from Physics including Professor James Lloyd-Hughes and Dr Jiahui Zhao alongside other collaborators have discovered 'hot spots' around atomic defects in diamonds.
Their research shows that, at the atomic scale, diamond material can briefly trap heat in unexpected ways. These findings could change how scientists design diamond-based quantum technologies, including ultra-precise sensors and future quantum computers.

Read the full press release.



Scientists achieve record-breaking charged particle mobility in new quantum material

Dr Maksym Myronov with colleagues at the National Research Council of Canada have achieved a major step towards the next generation of electronics.

Published in 'Materials Today', the study demonstrates a nanometre-thin germanium layer grown on silicon that speeds up the flow of electrical charge which is a major step towards the next generation of electronics.

Read the press release.

First observations by 4-metre Multi-Object Spectroscopic Telescope (4MOST)

Astronomer Professor Pier-Emmanuel Tremblay is set to lead two sub-surveys for the new 4-metre Multi-Object Spectroscopic Telescope (4MOST) which has recently been installed at the European Southern Observatory's Paranal Observatory in Chile.

The surveys will collect medium-resolution optical spectra for all the 200,000 stars located within about 330 light-years (100 parsecs) of the Sun that are visible from Chile, whilst the other survey will target the 150,000 white dwarfs previously identified by the European Space Agency's Gaia mission. Read the full press release.

An international analysis team within the ATLAS collaboration, led by Dr Muhammad Alhroob from the University of Warwick, has observed WWγ production — a rare process where two W bosons and a photon are produced together. This discovery provides new insight into the electroweak force, one of the fundamental forces governing particle interactions. Find out more.

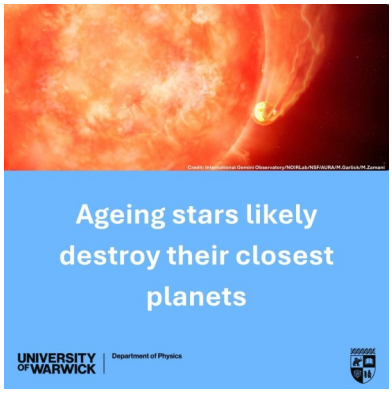
Dr Jessica Marshall has been awarded £236,000 for a six-month research project funded by the UK Atomic Energy Authority (UKAEA), marking a significant step forward in the development of Novel shielding materials and technologies for fusion shielding. Find out more.

Do you have a story that could be included in the next newsletter? Click here to let us know!

Astronomer Dr Edward Bryant with colleagues at University College London have uncovered new evidence that ageing stars may be destroying the giant planets orbiting close to them.

Their study, recently published in Monthly Notices of the Royal Astronomical Society, examined nearly half a million nearby star systems to understand how often planets survive when their host star expands into a red giant.

Read the full press release.

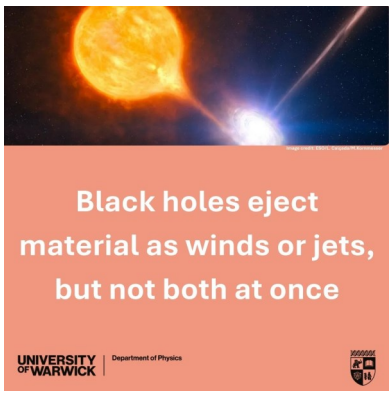


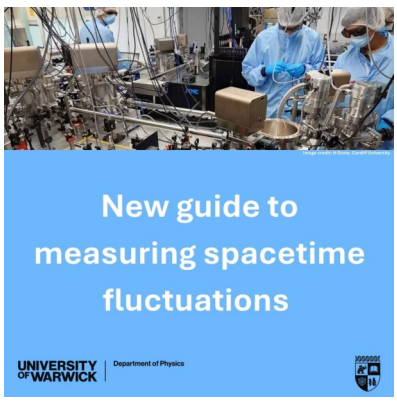
A team of astronomers, including Noel Castro Segura have published a new paper in Nature Astronomy. The team have made a completely unexpected discovery of a beautiful yet mysterious shock wave around a dead star.

Read the full press release.

Dr Jiachen Jiang along with colleagues from the University of Oxford have published a paper in Nature Astronomy focused on the first clear observational evidence that relativistic jets and X-ray winds are ejected from black holes, why this occurs and whether they are connected.

Read the full press release.





A new paper by researchers from our Theory group presents the first unified framework for detecting “spacetime fluctuations” - tiny, random distortions of spacetime that are an ingredient of several quantum and semi-classical models of gravity.

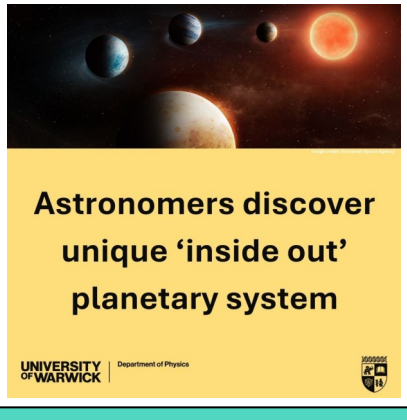
Published in Nature Communications, this study brings clarity to a long-standing challenge by classifying these fluctuations into three distinct categories and translating predictions into measurable signals.

Read the full press release.

Dr Thomas Wilson along with a team of international scientists have discovered a planetary system with a distant rocky world that turns our understanding of planet formation upside down.

The team used an European Space Agency (ESA) telescope, CHaracterising ExOPlanet Satellite (CHEOPS), to look closer at a star and identified a fourth planet at the system’s outer edge which was rocky, not gaseous. The team have published their findings in Science.

Read the full press release.



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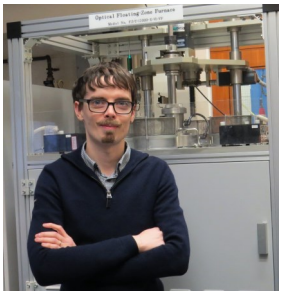
People and Awards

Ingrid Pelisoli



Daniel Mayoh

Tim Gershon

Congratulations to Dr Ingrid Pelisoli has been awarded the 2026 Royal Astronomical Society Fowler Award for her noteworthy discoveries related to binary star systems and stellar mergers. Read the press release.

Congratulations to Dr Daniel Mayoh who has received the highly competitive ISIS Springboard Award, designed to encourage early career researchers (ERCs). Read more.

Congratulations to Professor Tim Gershon who has been elected as the next international Spokesperson for the LHCb collaboration at CERN. Read more.

Staff Profile

Name, Job title: Dr. Angela Romano, Associate Professor in Elementary Particle Physics Group

My role involves: Research in experimental particle physics, alongside teaching and student mentorship. My research focuses on flavour physics and the search for physics beyond the Standard Model. At Warwick, I contribute to the LHCb collaboration, working on precision measurements of rare processes and CP violation, as well as on detector R&D for future upgrades. I bring expertise in particle identification systems, fast timing detectors and photon detection technologies, developed through leading roles in the NA62 experiment at CERN and within the international DRD4 collaboration programme. In the coming years, I will teach undergraduate physics students, supervise student research projects and PhD students in experimental particle physics, and serve as a personal tutor within the Department. I look forward to contributing to Warwick's high-quality learning environment by bringing research-led teaching into the classroom and supporting students as they develop into confident, independent scientists. I am also passionate about outreach and public engagement, and enjoy sharing the excitement of particle physics with schools and the wider community.

My career history: Before joining Warwick, I was a research fellow in particle physics at the University of Birmingham. My research career has been closely linked to CERN, where I played a key role in the measurement of the ultra-rare $K^+ \to \pi^+ \nu\nu$ decay within the NA62 experiment. I led the KTAG Cherenkov particle-identification detector and the NA62 high-level trigger system, and I currently serve as deputy convener of the photodetector working group in the DRD4 collaboration at CERN. My work bridges precision flavour physics and advanced detector technology, combining physics analysis, detector design, commissioning and operation in large international collaborations.

When not at work, you can find me: Travelling with my family, enjoying italian food, gardening and renovating my home. Also I love making the most of sports and outdoor activities whenever possible.

View the other new staff profiles.

Do you have a story that could be included in the next newsletter? Click here to let us know!

Starters and Leavers (31 October—28 February)

The department welcomes...

Chen Chen
Weitao Chen
Paniz Foshat
Ed Mewes
Katherine Norman
Austin Peach
Jenny Picariello
Angela Romano
Sahl Rowther
Rakesh Sakar
Nick Watkins

We say thank you and good luck to...

Robert Day
Marion Lehuraux
Reinhard Maurer
Gavin Morley
James Munday
Vatsal Panwar
Anishur Rahman
Miguel Ramos Pernas
Robin Sjokvist
Lizzie Thorne
Sophie Wawman
Charlie Whitewood

Physics students named as Future Leaders

Students Sem Kohyrelon (Third year Physics with Business student) and Anas Abdulahi (Second year Physics student) have been nominated in the top 150 Black Future Leaders list by Powerful Media.

An annual publication by Powerful Media, the Top 150 Black Future Leaders profiles 150 outstanding Black university students in the UK, serving as role models for students at school, sixth-form, college and university.

In the 2025-2026 edition, Sem was nominated due to his involvement with Prosper Warwick (current Co-President) and his involvement in the development of an app to help level the playing field for students from diverse academic and socioeconomic backgrounds, as well as other activities in his spare time. Anas was nominated for trailblazing in his community, securing various placements and becoming treasurer of the East African Society.

Read the full news piece.

Award Conferrals (August 2025—March 2026)

Congratulations to the following people who have been awarded Doctor of Philosophy in Physics:

Francisco Alvarado Cesar
Alina Bendt
Joe Creegen
Spandan Dash
Justas Deveikis
Abigail Elms
Patrick Fuller
Mo Ghani
Joe Gore
Behzad Jazizadeh Karimi
Luke Johnson
Katharina Lachner
Laura Millson
Matthew Monk
Emir Muhammad
James Munday
Azib Norazman
Mairi O'Brien
Huiliang Ou
Lorenzo Paolucci
Tobias Slade-Harajda
Luke Smith
Alkaios Stamatelatos
Saffron Tyler
Xueyi Wang

Congratulations to those who have been awarded a Master of Science (by Research) in Physics:

Mehmet Baran Okten
Oliver Giles
Ayham Yousif

Do you have a story that could be included in the next newsletter? Click here to let us know!

Do you use social media?

The Research Communications, based in the Central Marketing Department (MCI), has been collaborating with the central social media team to create guidance which should empower our academics to promote their research. This guidance is now live and is currently being disseminated.

The guidance is available via the Research Communications team page, and below:

Social Media Guidance for Academic Staff

Social Media Playbook

Online and Social Media Policy

The Online and Social Media policy applies to all use of social media and online communications tools, including when staff and students are communicating in a personal or a professional capacity i.e. from a personal as well as from a work account.

The policy aims to set out expectations for how our community will behave online, how the University will support them, and how the University will take action if inappropriate activity is shared with us.

You are responsible for what and how you communicate online. As part of our community – which includes students and staff – the University expects you to:

- Behave in a way that respects the rights and dignity of others
- Treat others fairly, with respect and dignity
- Value differences in others and the contribution they make
- Work and study within the University on a co-operative basis
- Demonstrate a commitment to upholding the University's policies on Equality, Diversity & Inclusion.

Conduct on social media and in online communications is treated the same way as any other behaviour for the purposes of University policies and procedures. This means that the same standards apply online as offline. All staff and student should make themselves aware of the full policy from the link above.

Warwick Monash Alliance Funding Opportunities

The Monash Warwick Alliance is committed to supporting researchers, educators and students at every level of collaboration. As part of a broader strategic refresh, the Alliance has introduced new funding mechanisms.

The funding opportunities provide an articulated pipeline through the Research Activation and Education Activation Fund, leading to large-scale Major Research Initiatives and Strategic Education Initiatives that have the ability to deliver significant impact and external funding.

The Professional Services Collaboration Fund is a new scheme to support joint initiatives across the professional service areas of Monash and Warwick

Find out more: Funding Opportunities

MONASH University | UNIVERSITY OF WARWICK

Do you have a story that could be included in the next newsletter? Click here to let us know!

Upcoming Dates

Anyone can add an event to the Physics calendar. If you have availability to help at one of the upcoming Offer Holder Open Days please let us know your availability or let us know if you can help out at our Open Days.

Warwick Education Conference— Thursday 4 June

Open Day—Saturday 20 June

Open Day—Saturday 27 June

Wellbeing Support

- At Warwick, staff members can join the Warwick Wellbeing Peer Support Group which aims to create a safe and confidential space for members of staff who would like support with their wellbeing. The group is facilitated by professionally trained Lead Peer Support Staff and members can shared lived experiences and knowledge in a safe and respectful environment.
- The Employee Assistance Programme (EAP) is a confidential support service designed to support staff (including GTA staff) with personal and professional problems that could be affecting your home life or work life, health and general wellbeing. This is available for you as well as immediate family members and offers services including life support, legal information, bereavement support, medical information and cognitive behavioural therapy (CBT).
- Wisdom APP provides confidential support with the option to contact via live chat, video call, helpline of request contact and offers tools such as weekly mood tracker, four week plans, mini health checks and breathing techniques.
- There are also rewards and benefits for staff at Warwick such as eyecare, dental plans and private medical insurance policies.

Find out what other support is available.

The Wellbeing team offer support to undergraduate and postgraduate students. Postgraduate students can also access support through the Doctoral College.

New training opportunities

The Leadership and Management Development (LMD) team has been rebranded as Talent and Development. The team now offer courses and programmes for everyone and have been designing new learning opportunities to support your growth, whatever your role.

Visit the pages to see what's on offer. You can also view the workshops and resources available.

The Social Inclusion Team has created new micro modules which will be delivered to your inbox from inclusionlearning@warwick.ac.uk.

Updated University policies

The university have updated their existing policies on Compassionate Leave Guidelines and Sexual Misconduct and Sexual Harassment Policy.

There are now new policies related to Time Off For Fertility Treatment Guidelines and Fostering Guidelines

You can find a list of all the policies and procedures on the People Team webpages.

Do you have a story that could be included in the next newsletter? Click here to let us know!