



Celebration of Physics

Physics has no boundaries



The Institute of Physics (IOP) Awards recognise and reward excellence in people and teams who have made outstanding and exceptional contributions to the discipline of physics.

They reflect the breadth of work in the physics community across academia, industry, education and outreach.

Previous winners constitute a roll call of those who have shaped physics in the 21st century. It is our aim to identify and honour physicists who are making remarkable contributions today, and to encourage younger members of the community to achieve even greater success in the future.



Welcome to the 2025 Awards

On behalf of the Institute of Physics, I want to congratulate all of this year's award winners on the significant and positive impact they have made in their profession, be it as a researcher, teacher, industrialist, technician or apprentice, and I hope they are incredibly proud of their achievements.

It is becoming more obvious that the opportunities generated by a career in physics are many and varied – and the potential our science has to transform our society and economy in the modern world is huge.

I hope our winners appreciate they are playing an important role in this community, and know how proud we are to celebrate their successes – I hope their stories will help to inspire current and future generations of scientists.

Professor Michele Dougherty CBE FRS FInstP FRAS FRSSAf
IOP President

Isaac Newton Medal and Lecture

The Isaac Newton Medal and Lecture is awarded annually for world-leading contributions to physics by an individual of any nationality. It recognises groundbreaking physicists and is the most prestigious award of the IOP.

Honorary Fellowship

An Honorary Fellowship is the highest accolade presented by the IOP to reflect an individual's exceptional services to physics.



Isaac Newton Medal and Lecture

Professor Sir Michael Berry FRS Hon.FInstP
University of Bristol

For groundbreaking work on the geometrical Berry phase of quantum states in topological physics and seminal contributions to mathematical physics in quantum chaos, catastrophe theory and singular optics.



Honorary Fellow

Dr Dimitra Darambara CPhys Hon.FInstP
Honorary Faculty: Multimodality Molecular Imaging,
The Institute of Cancer Research

For the establishment of the IOP's Medical Physics Group, and continued advocacy of physics applied to medicine, attracting academic, industrial, and clinical impact.



Honorary Fellow

Mrs Carol Monaghan Hon.FInstP
Physics Teacher

A distinguished teacher of physics who served as a Member of Parliament for nine years, using their position to highlight the challenges facing STEM industry, technology and skills.

International Bilateral Medal

Our International Bilateral Medals and Prizes are made jointly with physical societies in Germany, France, Italy, and Australia. They are designed to strengthen relationships between our institutions and acknowledge outstanding physicists who are pioneering research and physics applications across borders.

Gold Medals

The Gold Medals and Prizes are awarded for outstanding and sustained contributions to physics by a person of international reputation.



Giuseppe Occhialini Medal

Professor Francesca Di Lodovico FInstP
Experimental Particle and Astroparticle Physics Group,
Department of Physics, King’s College London.

For significant contributions to neutrino physics, the study of oscillation parameters in the neutrino and quark sectors, and leadership of future long-baseline neutrino experiments.



Richard Glazebrook Medal and Prize

Professor Peter Littlewood FRS FInstP
University of St Andrews, and University of Chicago

For leading international research institutions, including the Argonne National Laboratory, and the Cavendish Laboratory, and especially as founding executive chair of the Faraday Institution, the UK’s independent institute for electrochemical energy storage research.



William Thomson, Lord Kelvin Medal and Prize

Professor Carol Davenport CPhys FInstP, Mel Horan, Annie Padwick, Dr Antonio Portas, Jonathan Sanderson, and Joe Shimwell NUSTEM

For pioneering new methodologies in physical sciences outreach and engagement, taking a nuanced, long-term approach to supporting children’s physics and career identity across North-East England and beyond.



Paul Dirac Medal and Prize

Professor Julia Mary Yeomans OBE FRS FInstP
University of Oxford

For contributions to understanding the collective behaviour of active particles, and work highlighting the relevance of active physics to living matter.

Silver Subject Medals

The Silver Subject Medals and Prizes are awarded for distinguished contributions to physics.



John William Strutt, Lord Rayleigh Medal and Prize

Professor Mark Dennis FlntP
School of Physics and Astronomy, University of Birmingham

For pioneering theoretical work on structured light and topological optics, from knotted fields to polarisation in the daylight sky.



Cecelia Payne-Gaposchkin Medal and Prize

Professor Robertus (Erdelyi) von Fay-Siebenburgen
University of Sheffield

For outstanding contributions to solar theory over the decades, and innovative approaches and leadership for ground-based solar instrumentation with application to space weather.



David Tabor Medal and Prize

Professor Oleg Kolosov FlntP
Lancaster University

For important contributions to the field of scanning probe microscopy that have helped to elucidate the physical properties of nanostructures.



James Chadwick Medal and Prize

Professor Cristina Lazzeroni FRS FlntP
School of Physics and Astronomy, University of Birmingham

For outstanding contributions to quark flavour physics via ground-breaking measurements of kaon decays with exquisite precision, which have had a major impact on the field.



Sam Edwards Medal and Prize

Professor Ard Louis
University of Oxford

For pioneering the development of novel mathematical and numerical models that have contributed to the understanding of soft matter and biological physics across length scales.



Lise Meitner Medal and Prize

Professor Doris Reiter FlntP, Professor Tobias Heindel FlntP, Dr Pranoti Kshirsagar, Professor Mete Atatüre FlntP, Professor Brian Gerardot, and Professor Emanuele Pelucchi
QuanTour

For innovative public engagement across the UK and Europe through the QuanTour project, featuring a travelling quantum light source and offering live insights into the work of physicists.



Thomas Young Medal and Prize

Professor Ifor Samuel FRSE FInstP

University of St Andrews

For internationally leading contributions to organic light-emitting diodes, organic lasers and their applications.



Nevill Mott Medal and Prize

Professor Samuel David Stranks FInstP

University of Cambridge

For outstanding contributions to the understanding and development of emerging semiconductor materials, particularly through multimodal microscopy techniques to connect photophysical, chemical and structural properties on different length and time scales.

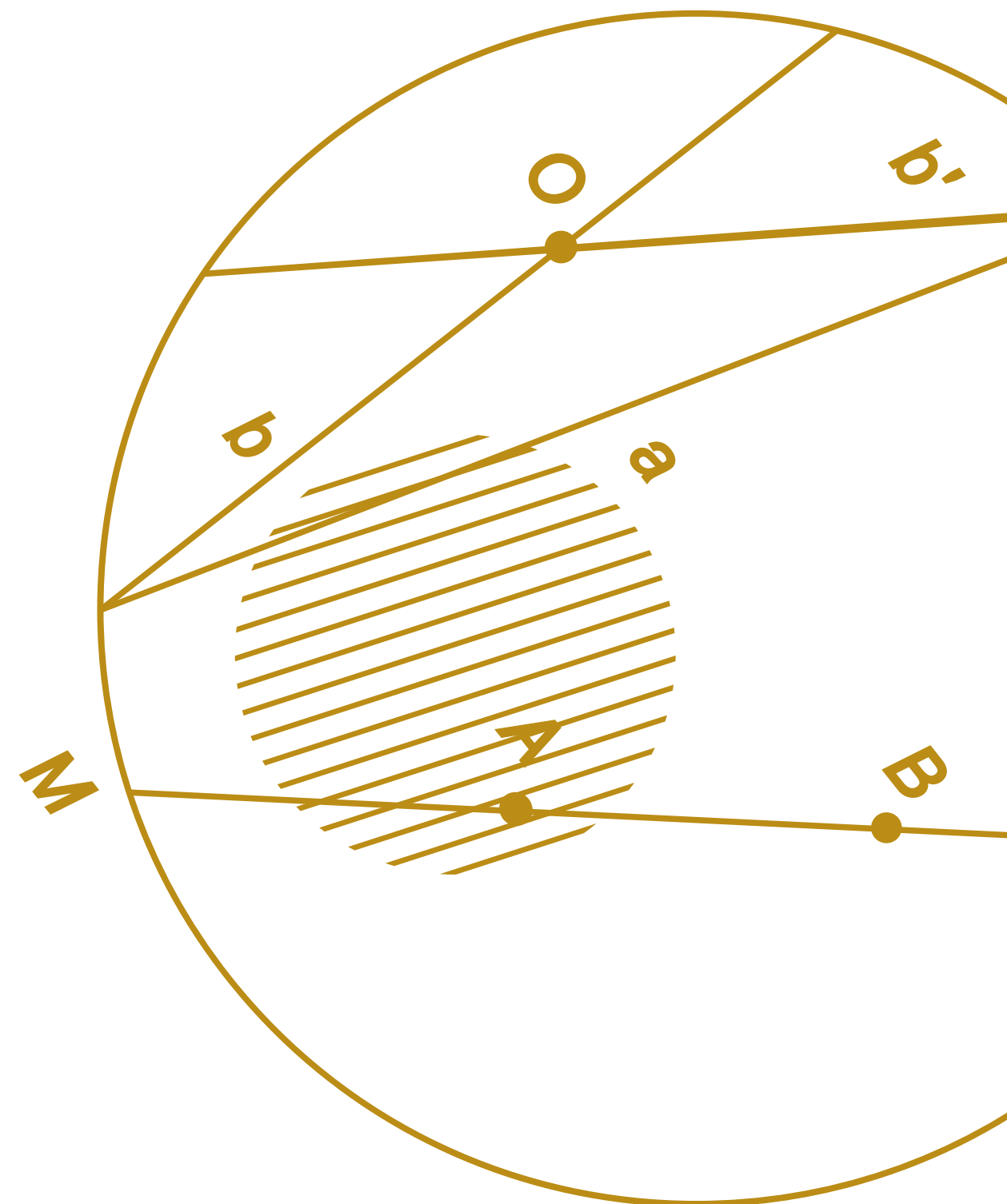


Peter Mansfield Medal and Prize

Professor Jim Wild FInstP

University of Sheffield

For distinguished contributions to the field of magnetic resonance imaging, specifically in lung imaging using hyperpolarised gas.



Bronze Early Career Medals

The Bronze Early Career Medals and Prizes are awarded for exceptional early career contributions to physics.



Clifford Paterson Medal and Prize

Dr Andrew Lamb, Jonathan Winch MInstP, and Dr Benjamin Andrews
Delta g

For the realisation of the first commercialised quantum sensor of gravity gradients under commercial contract and demonstrating its relevance to transport applications.



Mary Somerville Medal and Prize

Dr James Lees MInstP
University of York

For helping to improve the effectiveness of outreach activities, primarily in founding and running the IOP Communicators Conference and leading important conversations on a national scale.



Henry Moseley Medal and Prize

Dr Raj Pandya
University of Warwick

For outstanding contributions to the understanding of coupled charge and structural dynamics in organic and inorganic nanomaterials, including the development of new enabling spectroscopic tools.



James Clerk Maxwell Medal and Prize

Dr Ana-Maria Raclariu MInstP
King's College London

For several groundbreaking contributions to (3+1)-dimensional asymptotically flat spacetimes, particularly, the discovery of novel connections between asymptotic symmetries in gravity and gauge theories, scattering observables and two-dimensional conformal field theories.



Jocelyn Bell Burnell Medal and Prize

Dr Lok Yiu Wu MInstP
University of Birmingham

For outstanding contributions to the development of a novel magnetic radical filter device, and for ongoing support of women and underrepresented groups in physics.

Teachers of Physics

The Teachers of Physics Awards celebrate the success of secondary school and college physics teachers who have raised the profile of physics and science.



Teacher of Physics

Ms Kerry Colyer
The Elton High School

For providing opportunities for all students and exceptional professional development support to teachers of physics in North-West England.



Teacher of Physics

Dr Aurora Gutierrez-Sosa MInstP
University of Liverpool Maths School

For transformative work in shaping the teaching of physics to students from all backgrounds in Liverpool.



Teacher of Physics

Ms Arabi Karteepan MInstP
Croydon High School

For tireless efforts to inspire students through personalised learning methods and interactive engagement with scientific projects.



Teacher of Physics

Mrs Susan Mighall CPhys MInstP
Rugby High School

For work in growing the number of girls taking A-level physics in school and in the wider Midlands through supporting the professional development of other physics teachers.



Teacher of Physics

Ms Mariea Murphy MInstP
Coláiste Naomh Mhuire, St Mary's College Naas

For 32 years of passionate advocacy for physics much of which in all-girls schools.



Teacher of Physics

Dr Colin Oates MInstP
Kinross High School

For consistently raising aspirations and maintaining a high-level of attainment in physics in the local area.

Technical Skills

Celebrating the contributions that apprentices and technicians make to physics.



Apprentice Award

Mx Sophia Garofeanu
Trainee Quantum Engineer Apprentice, Quantum Motion
For exceptional contributions to developing and expanding the provision of apprenticeships, as well as transformative work as an apprentice in superconducting magnet manufacturing.



School and Further Education Technician

Mr John Jermy MInstP
Senior Science Technician, King's Ely
For over 40 years of innovative, diligent practical support of thousands of physics students in East Anglia, England.



Business, Higher Education and National Research Facility Technician

Mr Martin McLaren
Technical Manager of the Centre for Designer Quantum Materials Institution, University of St Andrews
For spearheading the design and creation of multi-million-pound research infrastructure at the University of St Andrews, Scotland



School and Further Education Technician

Ms Helen M Rose
Technician Lead, STEM Learning Ltd
For leading the professional development and training programme of technicians at the National STEM Learning Centre.



Business, Higher Education and National Research Facility Technician

Mrs Joan Shaw
Science and Primary Teaching Support Technician, University of Birmingham
For support of trainee science teachers and technicians at the University of Birmingham's School of Education in developing practical skills, and for wider contributions to science teaching professional development across the West Midlands, England.

Phillips Award

The Phillips Award recognises members who have championed innovative ideas or contributed to activities that support the delivery of the IOP Strategy.

NJP Early Career Award

The New Journal of Physics Early Career award recognises the talent and hard work of exceptional, young researchers who are making a significant contribution to their respective field of research.



Phillips Award

Christina Astin CPhys FInstP
Astin Consulting

For outstanding leadership for over 30 years in widening participation in physics, especially for women and girls, through innovative education, outreach and mentoring initiatives with national and international impact.



Phillips Award

Dawn Watson CPhys FInstP
Sellafield

For dedication to diversity and inclusion in the nuclear industry, developing and running a gender-inclusive mentoring scheme, and making women in physics events accessible to those across the UK and Ireland.



NJP Early Career Award

Armin Tavakoli
Lund University, Sweden

For groundbreaking work that spans Bell nonlocality, quantum communication, and high-dimensional entanglement. Since joining Lund university in 2023 as Assistant Professor, they have built a thriving research environment, secured competitive grants, and emerged as a rising leader in the field.

Physics Inclusion Award

The IOP’s new inclusion award, developed in partnership with the physics community, supports university physics departments to be welcoming and inclusive to all.



Physics Inclusion Award

University of Southampton
School of Physics and Astronomy

Proudly awarded with Level 2 status, recognising its exceptional leadership in advancing equity, diversity, and inclusion. The school stands out for its innovative mentoring and reverse mentoring programmes, inclusive recruitment practices, and support for staff returning from career breaks.



Physics Inclusion Award

University College London
Department of Physics and Astronomy

Proudly awarded with Level 1 status, celebrating its exceptional dedication to equity, diversity, and inclusion. The department stands out for its data-driven approach, inclusive recruitment and progression practices, and commitment to accessible communications.



Physics Inclusion Award

University of Manchester
Department of Physics and Astronomy

Proudly awarded with Level 1 status. The department shines through its inclusive open day practices, strong representation across ethnicities and genders, and embedded EDI leadership.



Physics Inclusion Award

University of Warwick
Department of Physics

Proudly awarded with Level 1 status, celebrating its strong commitment to equity, diversity, and inclusion. The department has demonstrated excellence in accessible open day practices, inclusive communications, and visible EDI leadership.

IOP Student Community Contribution Prize

The Student Community Contribution Prize recognises student and postgraduate members who have played a significant role supporting the IOP and promoting professional development.



IOP Student Community Contribution Prize

Sophie Gresty
University of Liverpool

For their continued service as a campus ambassador and Merseyside branch committee member, and their dedication to PLANCKS, chairing the Liverpool event and supporting the Surrey, Dublin, and Swansea editions.



IOP Student Community Contribution Prize

Aishwarya G Kumar MInstP
Renishaw

For their leadership of the University of Manchester Physics Outreach society, revitalising the group’s membership post-COVID, and pioneering an approach to physics outreach, which has been shared nationally across IOP affiliated societies at FUSE.



IOP Student Community Contribution Prize

Priyanka Saini
University College Dublin

For their outstanding leadership in student physics engagement through roles with IUPAP, IAPS, IOP and APS, and for advancing international collaboration, outreach, and inclusive community – building across the global physics student network.

**Congratulations to the
IOP award winners
for their outstanding
contribution to the
advancement of physics,
for the benefit for all.**

IOP Institute of Physics

37 Caledonian Road, London N1 9BU
Tel +44 (0)20 7470 4800
iop.org

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