

Friday 28th August - 7pm



Speaker:

Dr Louise Devoy

**Senior Curator at the Royal
Observatory Greenwich.**

Title: ‘Royal Observatory Greenwich: A History in Objects.’

Description:

Based on the stories featured in her recent book, Louise Devoy explores the rich legacy of this famous site through 100 fascinating objects. Alongside the Observatory’s clocks, telescopes, journals and instruments are family photos, paintings and even a bespoke observing suit that reveal the domestic world of the Astronomer Royal.

From the intricacy of John Harrison’s revolutionary timekeepers to the impressive scale of the Great Equatorial Telescope, each item demonstrates the Observatory’s achievements in pioneering astronomy, innovative engineering, accurate time distribution and collaborative scientific projects. Together they chart the development of the Observatory from its founding in 1675 to its growing influence on travel, trade and communication that continues to underpin our lives today.

Speaker Biography:

Dr Louise Devoy is Senior Curator, Royal Observatory at Royal Museums Greenwich. She has a background in astrophysics and the history of science and has worked at various museums in the UK and abroad.

Her research interests encompass astronomical instruments, women in astronomy and networks of knowledge exchange between historic observatories.

This opening talk is free of charge - you do not need to book.
Seats are available on a first come, first served basis.

Saturday 29th August - 10:45am



Speaker:

Neil Philipson

**Observatory Designer and
Science Communicator.**

Title: 'Mankind's Next Great Leap'

Description:

Neil explains the incredible achievements of the post-Moon era – showing how the vast body of work the scientific community has done since the Moon landings has led us to the moment when we shall, at last, become a space-faring civilisation, ready to explore and colonise the Solar System and beyond – bringing vast benefits to Earth and transforming society for the better.

He presents a bold vision of a better future – one in which innovation and progress flourish while war, poverty, illness and hunger are finally relegated to history. Suitable for all audiences.

Speaker Biography:

Neil Phillipson studied for a Masters degree in Space Science from the University of Kent.

He is the former owner of Astronomia (a UK astronomy retailer), during which he trained over 1000 people to use their telescopes, ran beginners' astrophotography courses and advised astronomers at all levels on their equipment, as well as carrying out service and repair of most types of instruments. Neil is an accomplished Observatory designer and creator of Home Farm Observatories.

Tickets can be booked at the info point for £4 each.
Booking is essential.

Saturday 29th August - 12:15pm



Speaker:
Dr Vicki Smith
Scientist at NERC
Space Geodesy Facility.

Title: '2026: A Space Geodesy'

Description:

Geodesy: the science of measurement and understanding our planet. This talk will introduce you to the science of geodesy and the work of the Space Geodesy Facility (SGF), the UK's only geodetic observatory.

From tracking man made satellites in orbit around the Earth the SGF supports services critical to our daily lives, from satellite navigation to flood forecasting. This talk will introduce the audience to the work of the Space Geodesy facility, and its impact on geodesy and Earth Observation sciences. Learn about the technique of satellite laser ranging; how we track a satellite, what sort of satellites we track and why we track them. The presentation will also touch upon terrestrial gravimetry; how we use small fluctuations in the measured acceleration due to Earth's gravity to learn more about our dynamic Earth.

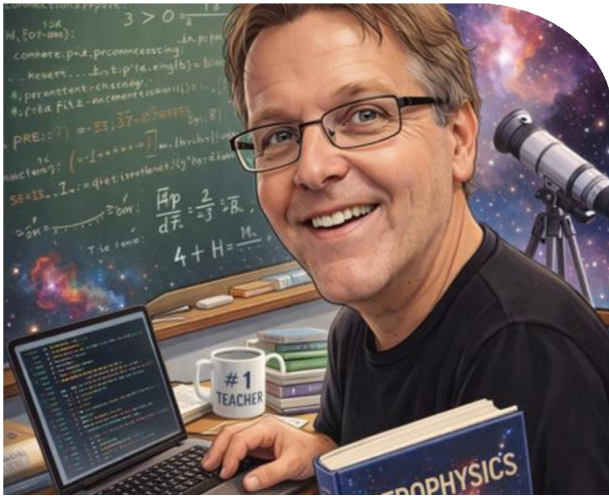
Speaker Biography:

Vicki is part of a six-person team at the UK Space Geodesy Facility (SGF), the nation's only geodetic observatory.

Whilst she specialises in measuring subtle changes in the Earth's gravity and manages the UK's only absolute gravity resource, she enjoys observation duty on the satellite laser ranging system. Vicki joined SGF in 2002 with a physics and engineering background and obtained a PhD in Geodesy from University College London in 2018.

Tickets can be booked at the info point for £4 each.
Booking is essential.

Saturday 29th August - 2:15pm



Speaker:

Gary Newport

Astrophysicist, computer scientist, and educator.

Title: 'The Voyager Missions'

Description:

Launched nearly half a century ago, NASA's twin Voyager spacecraft embarked on one of humanity's greatest adventures. Originally intended to explore the outer planets, these iconic probes have revealed the breathtaking worlds of Jupiter, Saturn, Uranus, and Neptune, sending back images and discoveries that changed our understanding of the solar system forever. Now, billions of miles from Earth and sailing through interstellar space, the Voyagers continue their silent journey, carrying a message from humanity into the cosmos.

Join us for a fascinating exploration of Voyager's incredible mission—from their ambitious beginnings and extraordinary planetary encounters, to their current status in deep space and their anticipated future as humanity's first emissaries to the stars.

Speaker Biography:

Gary is an astrophysicist, computer scientist, and educator based on the south coast of the United Kingdom. He combines active research in stellar evolution with a long-standing career in teaching, public outreach, and educational leadership. His research focuses on the physics of stars — their formation from collapsing molecular clouds, their internal structure and energy generation, and their eventual evolution into white dwarfs, neutron stars, or black holes. He works extensively with computational stellar evolution models, modernising and analysing legacy code to explore how stars grow, shine, and ultimately enrich the universe with the elements essential for planets and life.

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Booking is essential.

Saturday 29th August - 3:45pm



Speaker:

Dr Robin Catchpole

**Former Senior Astronomer
at the Royal Observatory
Greenwich.**

Title: 'Are We Alone?'

Description:

We live in a universe perfectly suited to our existence, containing galaxies, stars, planets and the building blocks of life. On Earth, life is found in rocks, ice and boiling water, suggesting it would be impossible to destroy, before the Sun becomes a red giant and evaporates our planet. Yet space is silent, suggesting, that though simple life may be common, technologically advanced life might be very rare.

We will present the evidence, then take a closer look at the development of life on Earth, before considering why we might be the only self-aware observers of our universe.

Speaker Biography:

Robin is a recent Senior Astronomer at the Royal Observatory Greenwich, currently working at the Institute of Astronomy in Cambridge. Robin took a BSc at University College, London, before being posted to the Royal Observatory at the Cape of Good Hope. He received his doctorate from the University of Cape Town. In 1991 Robin returned to the Royal Greenwich Observatory, where he worked until it closed in 1998.

Robin has authored and co-authored over 120 research papers and has used telescopes around the world including the Hubble Space Telescope. Robin's research interests include the composition of stars, exploding stars, the structure of our Galaxy and galaxies with central black holes. I give numerous popular lectures and radio and TV interviews.

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Sunday 30th August - 10:45am



Speaker:

Doug Edworthy FRAS

**Astronomy Enthusiast and
Long service Volunteer.**

Title: 'Please Don't Light Me Up'

Description:

This talk is all about ALAN. No, not a person, 'Artificial Light At Night'. I'll explain what ALAN is, how it impacts the night sky and astronomy, wildlife and ecosystems, human health, public safety and energy, climate, and equity.

The talk will demonstrate the effects of light pollution on the night sky, ranging from the best possible skies through to a heavily polluted inner city. But it's not all doom and gloom, along with the problems, the talk will discuss ways we can all help mitigate ALAN (poor chap) and ensure future generations can marvel at our glorious clear skies.

Speaker Biography:

Doug is a retired electronics engineer who has been fascinated by astronomy since hearing Sputnik's beeps over the radio when he was four years old. In retirement Doug has amassed far too many telescopes and binoculars, been Chair of a local astronomical society, devised and run telescope clinics at the Observatory Science Centre, Herstmonceux, been elected a Fellow of the Royal Astronomical Society, and over the past four years has been an active volunteer in the High Weald Dark Skies festivals delivering talks and walks on astronomy and the need for dark skies. In his other, parallel, lives Doug is Tree Warden for two rural parishes, Volunteer Warden for a Forestry England plantation, a Verifier for the Woodland Trust's Ancient Tree Inventory and delivers talks and walks on these subjects.

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Sunday 30th August - 12:15pm



**THIS TALK IS VIRTUAL
VIA VIDEOLINK**

Speaker:

Prof. Jim Wild

**President of the Royal
Astronomical Society.**

Title: ‘Solar superstorms - Are we ready for another Carrington Event?’

Description:

In September 1859, the English astronomer Richard Carrington made the first recorded observations of a solar flare. Unknown to Carrington, the flare coincided with a fast-moving coronal mass ejection that struck the Earth’s less than twenty four hours later, triggering the most powerful geomagnetic storm of the modern age. The storm, now known as “the Carrington event”, sparked auroral displays visible as far south as the Caribbean and disrupted operations of the global telegraph network. But this powerful space weather event pre-dated most of the technologies that we depend upon today, such as power grids, satellites, and wireless communications. How vulnerable are we? Are we prepared for the next Carrington event? In this talk, Prof Jim Wild considers the resilience of the modern world to extreme space weather.

Speaker Biography:

Jim Wild is the Professor of Space Physics in the School of Physics and Astronomy at Lancaster University and the President of the Royal Astronomical Society. His research focuses on the links between the Sun, the Earth and other planets. As well as exploring the physics of the natural space environment, he studies the impact of a range of solar-driven phenomena that are now understood to be a risk to human technologies. He leads the Space and Planetary Physics research group at Lancaster University, a team of around 20 academics, post-doctoral researchers and postgraduate students. Jim has held significant leadership roles in the wider research community, and is engaged with policy-makers and industry stakeholders. Beyond his research, he has a proven track-record of leadership in higher education, with considerable experience in university-level teaching, learning and recruitment in the STEM disciplines.

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Sunday 30th August - 2:15pm



Speaker:
Prof. Stephen Wilkins
**Professor in Astronomy
and Public Understanding
of Science at the
University of Sussex.**

Title: 'Simulating the Universe'

Description:

How do galaxies form? Why do stars gather into vast cosmic webs? And what role do dark matter and black holes play in shaping the Universe we see today? While telescopes allow us to observe the cosmos, another powerful approach is to recreate it inside a computer.

In this talk, I will show how astronomers build "virtual universes" by combining the laws of physics with some of the world's most powerful supercomputers. Starting just after the Big Bang, these simulations follow the growth of cosmic structure over billions of years, revealing how galaxies, stars, and black holes form and evolve. I will explain how these virtual universes help us interpret observations from telescopes such as the James Webb Space Telescope and how they are guiding the next generation of discoveries. Along the way, we will explore both what simulations can tell us—and the mysteries they have yet to solve.

Speaker Biography:

Stephen is currently a Professor in Astronomy and Public Understanding of Science in the Department of Physics & Astronomy at the University of Sussex. He was born in Yorkshire and went on to do his undergraduate degree in physics at the University of Durham (2002-2006). Stephen then undertook a PhD in Astronomy at the Institute of Astronomy at the University of Cambridge (2006-2009) followed by a post-doctoral research association (PDRA) position at the University of Oxford (2009-2013). In 2013, he was appointed a lecturer in Astronomy at the University of Sussex, then promoted to Senior Lecturer in 2016, in 2019 to Reader, and in 2023 to (full) Professor. Stephen currently serves as Head of Physics & Astronomy at Sussex.

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Sunday 30th August - 3:45pm



Speaker:

Dr Darren Baskill

Assistant professor and outreach officer in the Department of Physics & Astronomy at the University of Sussex.

Title: 'The Tidal Universe'

Description:

Here in Sussex (by the sea), we are used to watching the tides rise and fall twice each day. But such tidal forces are active throughout our Universe – with both creative and destructive results.

Gravity is well known as the force that binds the cosmos together, yet it is the differences in gravity that lead to some of the most dramatic phenomena in the Universe. From ocean tides that gave rise to life on Earth (and possibly elsewhere in our solar system, and beyond), to the destruction of stars by supermassive black holes and the evolution of entire galaxies, this talk will present an overview of how tidal forces have shape our Universe across a vast range of scales.

Speaker Biography:

Dr Darren Baskill is a lecturer and outreach officer in the Department of Physics & Astronomy at the University of Sussex. He has over 25 years' experience of both professional and amateur astronomy, and in organising and delivering science events for schools, colleges, and the public.

He is an astrophysicist, educator, lecturer and photographer. His specialism is in communicating astronomy to the public, giving talks and working with the media on all aspects of astronomy and astrophotography. He has appeared on BBC TV, radio and news online on many occasions, as well as frequently writing for the BBC Focus magazine. He previously taught astronomy at the Royal Observatory Greenwich science centre and planetarium in London, where he initiated the highly successful Astronomy Photographer of the Year public competition and exhibition.

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