



ROYAL SOCIETY LATES 2075: A SPACE ODYSSEY

TUESDAY 7 OCTOBER 2025

PROGRAMME

THE
ROYAL
SOCIETY

#RSLates

Event information

TALKS

Admittance to our talks will be on a first-come, first-served basis, unless otherwise stated. Please ensure you arrive at least 10 minutes before the scheduled talk time as it may be busy.

See page 6 for the list of tonight's talks.

Some of our talks are ticketed – please see page 4 for more information.

DROP-IN ACTIVITIES

These run throughout the evening, so you can drop in at any time. Please note if the room is at capacity you may have to wait.

TICKETED EVENTS

You must have a valid ticket to attend our ticketed events.

For more details, see page 4.



General information

Photography policy

Please be aware that photography/filming may take place during your visit to the Royal Society. If you do not wish to consent, please visit the information desk to collect an opt-out sticker from a member of staff. If you wish to use photograph or filming equipment at the event, remember to respect visitors wearing a 'no photography' sticker who do not wish to be photographed/filmed.

The Society's privacy policy can be viewed online at: royalsociety.org/privacy-policy

Accessibility

We strive to make events as accessible to everyone as possible, including large print programmes and portable seats. Talks have live subtitles and are live streamed on our YouTube channel.

Large print programmes are available from the information desk.

A quiet room is also available – please speak to a member of staff at the information desk for details.

Staff

Should you require any help during your visit to the Royal Society, our team will be happy to assist you. You can visit the Information desk or find a member of our team around the building.

Welcome

In celebration of World Space Week, we are delighted to open the doors to our historic building and invite you to join us in a journey beyond the Earth's orbit.

Earlier this year the Royal Society published its *Space: 2075* report, encouraging those in power to consider the implications of space exploration over the next 50 years for our societies, industries, economies and culture. Tonight's Lates invites you to ponder the question of where space travel is headed, literally and figuratively.

Discover how microgravity may provide conditions perfect for developing life-saving drugs, learn about the impact of the Sun's magnetic fields on everything from the formation of galaxies to mobile phone communication, hear from leading engineers in space tech and immerse yourself in a newly-established Mars colony via the medium of interactive theatre.

Now, it's time to exit the airlock and embark on your space odyssey.

royalsociety.org/events



/theroyalsociety



/royalsociety

#RSLates

Ticketed events



Credit: NASA

Talk

1

Library reading room

Time: 6.30pm, 7.20pm, 8.10pm and 9pm

Running time: 25 minutes

They came from outer space

How do you attract aliens? According to one 20th century Fellow of the Royal Society, “all you need is a little light signalling, because they already know morse code”.

Royal Society Librarian, Keith Moore, explains how a technological exhibition at the Royal Society inspired a science fiction excursion into the unknown.

To attend this event, please collect a ticket from the information desk.



Performance

2

Wolfson Room 2

Time: 7pm, 8.30pm

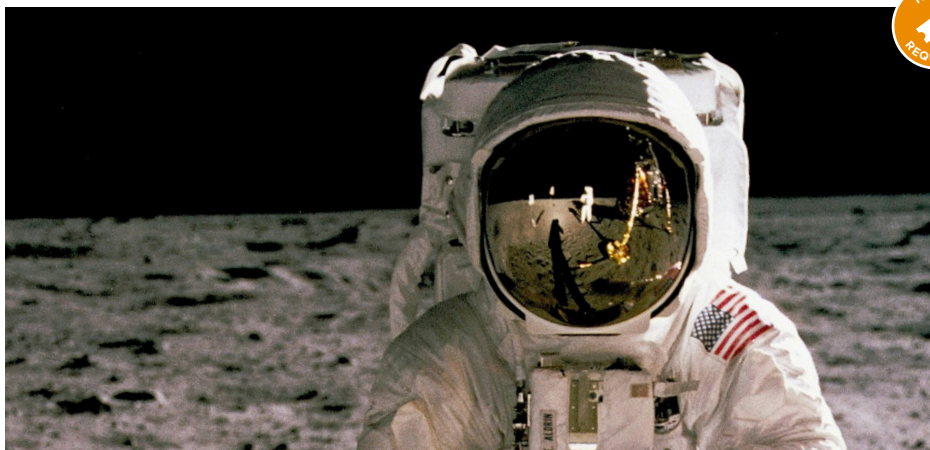
Running time: 1 hour

Red planet: revolution

It's the year 2225. After centuries of crushing rule by Earth, the human settlement on Mars has finally declared its freedom. As the leaders of the Martian revolution, every decision you make will echo down history.

The critically acclaimed Upstart Theatre invite you to take part in this award-nominated, immersive, live-action storytelling game. Playing in small teams, you'll grapple with the power to shape a new society.

To attend this event, please collect a ticket from the information desk.



Talk

Wellcome Trust Lecture Hall

Time: 7.30pm

Running time: 1 hour 20 minutes

3

The world, the universe and us: live

In this special live edition of *New Scientist's* award-winning podcast, host Abigail Beall is joined by special guests, the first British astronaut Helen Sharman, biomedical engineer Dr Irene Di Giulio and BioOrbit CEO Dr Katie King, to delve into the topic of space and the body. Together they'll explore the impacts of spaceflight on the human body, the medical breakthroughs we owe to technologies developed for space exploration and how research and manufacturing in microgravity may lead to new, life-saving drugs here on Earth.

This event is separately ticketed and at the time of going to print is fully booked, however you may check Eventbrite for returned tickets.

Talks



Credit: NASA

Talk

Kohn centre

Time: 6.30pm

Running time: 20 minutes

4

A perspective on space – preparing for 2075

Join Sir Martin Sweeting FRS, co-chair of the Royal Society's *Space: 2075* report, as he casts an eye forward to the advances we might see in the next 50 years of space exploration. What should we expect for future launch technologies? When will we return to the moon? Could we even find life beyond Earth?



Credit: NASA

Talk

Kohn centre

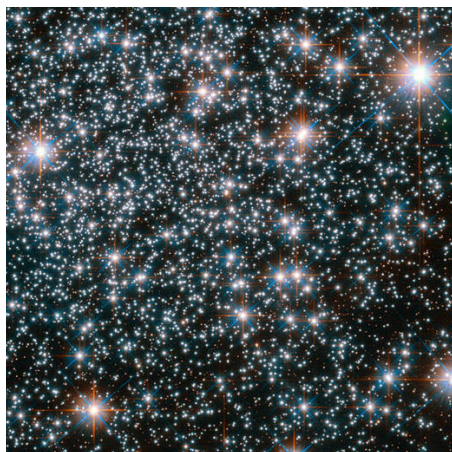
Time: 7.10pm

Running time: 30 minutes

5

Meet the space engineers

The work of engineers is helping to push new boundaries in space exploration. In this panel discussion the UK Space Agency's Jodie Howlett, materials engineer Dr Katrina Skerratt-Love and Helen O'Brien, lead engineer and instrument manager of the magnetometers on ESA's Solar Orbiter and NASA's IMAP and HelioSwarm spacecraft, come together to reveal how.



Credit NASA

Talk

Kohn centre

Time: 8pm

Running time: 30 minutes

6

The life of stars

Astrophysicists Professor Lucie Green – author of *15 million degrees: a journey to the centre of the sun* – and Dr Kate Pattle, Royal Society University Research Fellow and lecturer at UCL, have a special interest in magnetic fields. Kate in how they influence star formation and Lucie in how they behave in the Sun’s atmosphere and how that affects us here on Earth. Here, they sit down together to discuss the births, deaths and lives of stars.



Performance and talk

Kohn centre

Time: 8.50pm

Running time: 50 minutes

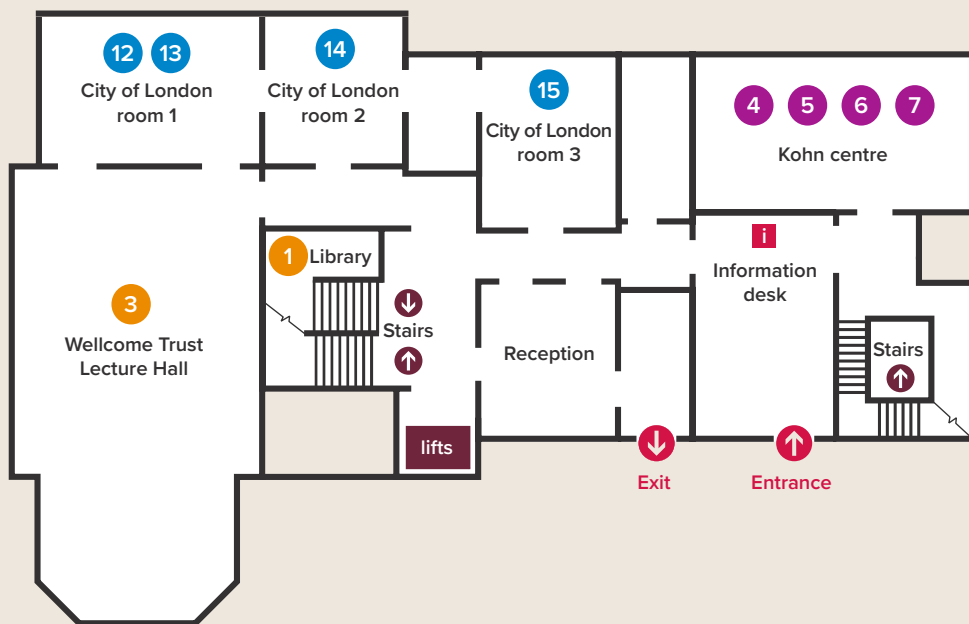
7

In space, can anybody hear you laugh?

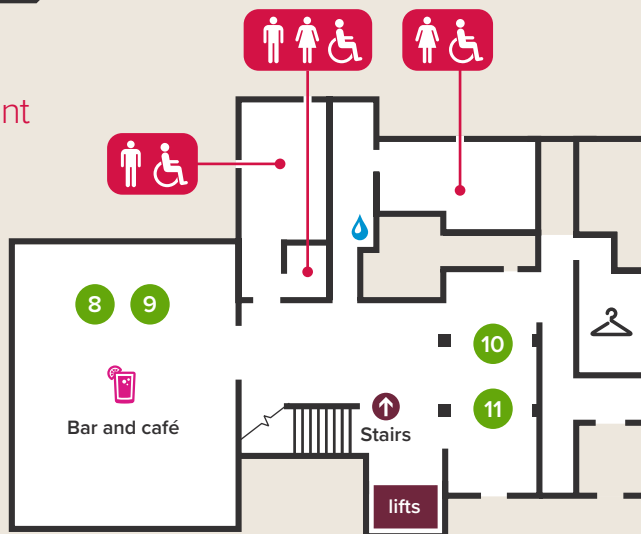
Comedians Helen Arney (Festival of the Spoken Nerd) and Professor Jen Gupta (*BBC Radio 4’s Stranger than sci-fi, secrets of our universe with Tim Peake*) are armed with a Jupiter-sized sack of songs, stories and jokes for your giggling pleasure and joined by a line-up of guest speakers. Author Helen Gordon reveals the weird and wonderful world inhabited by meteor hunters; and in a pre-recorded talk, Royal Society Young People’s Book Prize winner, Dr Sheila Kanani asks “Can you get jellyfish in space?”.

Map

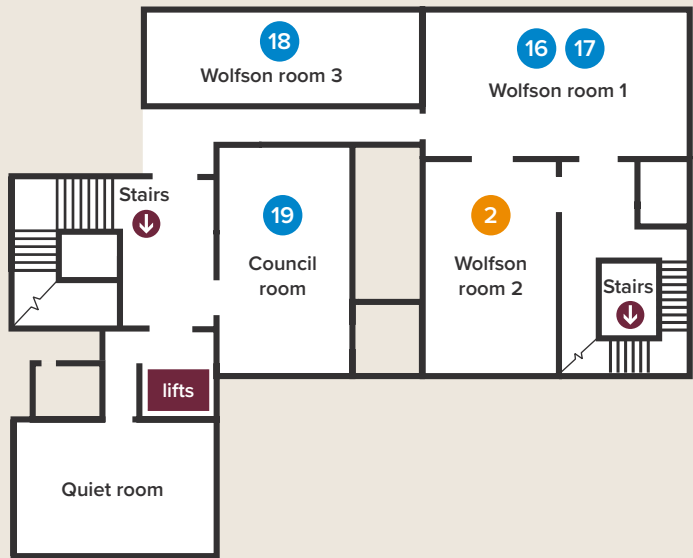
Ground floor










Basement



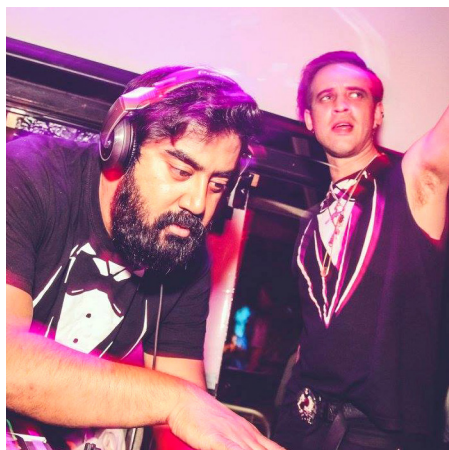
First floor



-  Ticketed events
-  Talks
-  Drop-in activities
-  Performances

-  Bar and café
-  Water fountain
-  Cloakroom

Performances



Performance

Bar and café

Time: 6pm – 10pm

8



Performance

Bar and café

Time: 7.30pm, 8.30pm

Running time: 25 minutes

9

Astrobeats with Soundtracks DJs

Soundtracks DJs have a strong claim to be London's most fervent film fanatics. Hosting movie soundtrack-themed events across London, from club nights to quizzes to bingo, there is no reel left unturned in pursuit of their followers' cinematic contentment. They join us to provide the musical backdrop in the bar and café packed with sci-fi soundtracks, future funk and cosmic pop.

Lunar Tunes with Molly Barnes

London-based singer-songwriter Molly Barnes specialises in acoustic jazz, pop and soul and has performed at festivals including Boomtown, opened for Madness and recorded at the legendary Abbey Road Studios. Tonight, she turns her musical hand to cosmic covers – expect her set to include space-themed hits galore.



Film

10

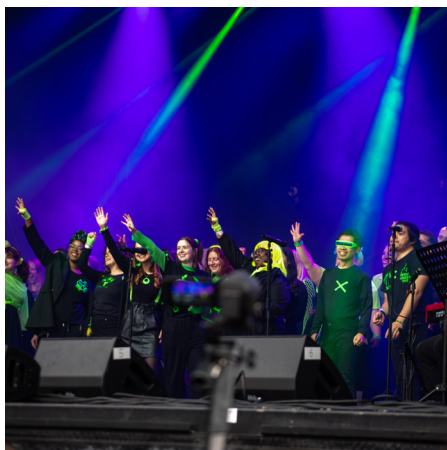
Exhibition area

Time: 6.30pm, 7.30pm

Running time: 25 minutes

Trailblazing scientists – celebrating 80 years of women Fellows

Explore the remarkable stories of trailblazing scientists Dame Kathleen Lonsdale FRS and Dr Marjory Stephenson FRS – the first women elected to the Fellowship of the Royal Society in 1945. Commissioned by the Royal Society, these films are part of a year-long programme of activities aimed at celebrating, supporting, and inspiring girls and women in STEM.



Performance

11

Exhibition area

Time: 7pm, 8pm

Running time: 20 minutes

Ready Singer One

Self-proclaimed, “London’s nerdiest choir”, Ready Singer One has amassed an impressive concert portfolio in just three years, performing at Comic Con, Japan Matsuri and the Science Museum, with multiple orchestras as well as appearing on BBC Radio and BBC News. At *2075: A Space Odyssey* they will be dusting down the most cosmic choral gems in their repertoire for your listening pleasure.

Drop-in activities



Drop-in activity

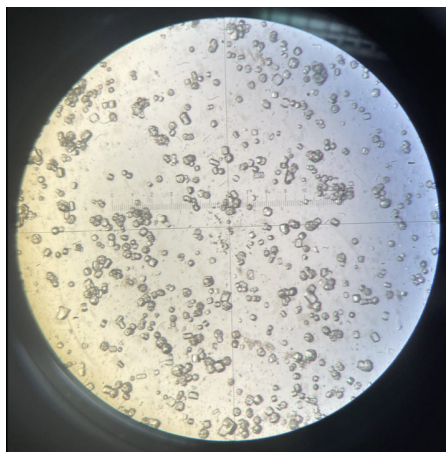
City of London Room 1

Time: 6pm – 9.30pm

12

Smart spacesuits of the future

Might spacesuits embedded with AI and robotic technologies help astronauts perform better as we seek to grow activities in space stations, establish lunar settlements, explore lunar mineral deposits and spend longer in space? Meet the multidisciplinary team consisting of space roboticists, space physiologists and spacesuit designers from King's College London and NavaSpace AS, who are at the forefront of pioneering AI-powered astronaut-assistive robotics, and see up-close a next-generation spacesuit.



Drop-in activity

City of London Room 1

Time: 6pm – 9.30pm

13

Space: the new frontier for medicine?

Microgravity has been shown to provide the ideal environment for drug development, but scalability has remained elusive, until now. UK-based biotech company BioOrbit is moving fast to build the world's first pharmaceutical factory in space. Meet their team and find out how exactly they plan to develop anticancer drugs in orbit that could save lives here on Earth.



Drop-in activity

City of London Room 2

Time: 6pm – 9.30pm

14

Exploring Space with the Science Museum

This September, the Science Museum opened its new gallery, Space, to the public, featuring iconic objects such as Tim Peake's Soyuz spacecraft and the Apollo 11 Command Module. The museum's Lead Curator of the gallery Abbie MacKinnon is on hand at Lates and has brought a variety of items from the museum's famous space collection for you to see up close.



Credit: Jeremy Montblat

Drop-in activity

City of London Room 3

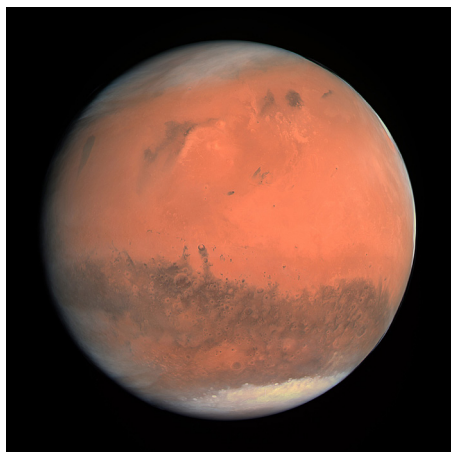
Time: 6pm – 9.30pm

15

Royal Institution: a journey through time and space

Join our friends from the Royal Institution (Ri) as they celebrate the 200th anniversary of the Christmas Lectures. The Ri team will showcase a fascinating collection of heritage items spanning 226 years of groundbreaking science discovery. Hold a 4.5-billion-year-old meteorite in your hands, uncover the unexpected connection between rocket fuel and the everyday Thermos flask and experience the thrill of gyroscopic forces in the famous 'gyro chair' last featured in Kevin Fong's 2015 Christmas Lecture.

Drop-in activities



Credit: ESA

Drop-in activity

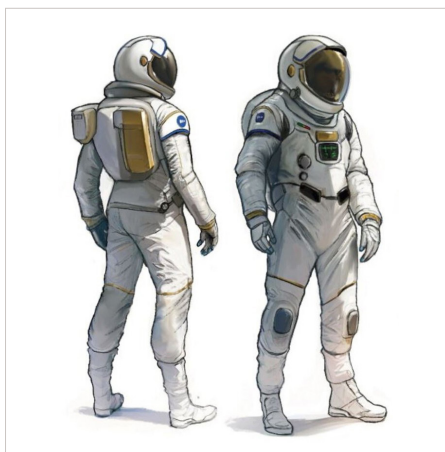
16

Wolfson Room 1

Time: 6pm – 9.30pm

Mapping Mars

Create a map of your own home-away-from-home on Mars. Experts from the UK Space Agency will be on hand to discuss the biological, physical and technological challenges that will accompany life on Mars, and to shine a light on some of the technological and scientific advances that may enable it. Combine scientific, imaginative, and personal elements to create a *Stardew valley*-esque version of home on another planet.



Credit: ©ESA (João Montenegro for the ESA's Space Suit Design Competition)

Drop-in activity

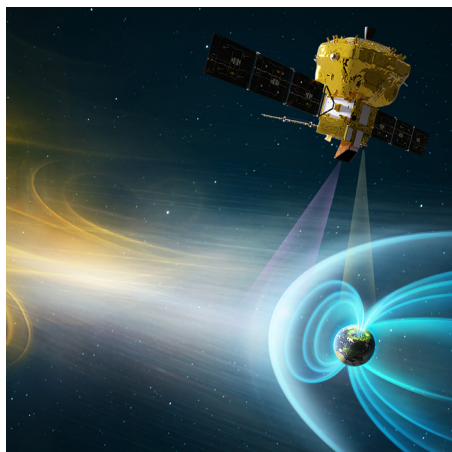
17

Wolfson Room 1

Time: 6pm – 9.30pm

Spacesuit studio

Spacesuits are an incredible feat of design to help fragile human bodies carry out tasks in space. Highly specialised textiles, materials, pattern cutting, engineering and assembly are needed in the design and development of space suits with which bodies can survive. But our needs are more complex than just function: we need comfort, stimulation, sharing and reflection. In this textile-based drop-in workshop, you'll use different craft techniques and ideas from science and science-fiction to reflect on what bodily, social and emotional needs a spacesuit could offer.



Credit: © ESA

Drop-in activity

Wolfson Room 3

Time: 6pm – 9.30pm

18

SMILE: Light, particles, action

The interaction of the Sun with the Earth's magnetic field has direct effects on our planet in numerous ways, from disruption to power grids and satellites to the influence of atmospheric changes on long term climate patterns. Missions like SMILE, launching early next year, are vital for measuring the solar wind and its interaction with the Earth's magnetosphere to build a comprehensive understanding of the Sun–Earth connection. Find out more about SMILE and other planned missions like it and even see the magnetosphere for yourself using augmented reality.



Credit: © NASA

Drop-in activity

Council Room

Time: 6pm – 9.30pm

19

Create your own galaxy

What excites you about the future of space exploration? What might far away and yet to be discovered planets look like? And if we ever find life beyond our own planet, what form do you think it will take? Let your imagination run wild and create a collective collage filled with your own personalised galaxies.

The Royal Society

The Royal Society is a self-governing Fellowship of many of the world's most distinguished scientists drawn from all areas of science, engineering, and medicine. The Society's fundamental purpose, as it has been since its foundation in 1660, is to recognise, promote, and support excellence in science and to encourage the development and use of science for the benefit of humanity.

The Society's strategic priorities emphasise its commitment to the highest quality science, to curiosity-driven research, and to the development and use of science for the benefit of society.

These priorities are:

- The Fellowship, Foreign Membership and beyond
- Influencing
- Research system and culture
- Science and society
- Corporate and governance.

For further information

The Royal Society
6 – 9 Carlton House Terrace
London SW1Y 5AG

T +44 20 7451 2500

W royalsociety.org



Founded in 1660, the Royal Society is the independent scientific academy of the UK, dedicated to promoting excellence in science.

Registered Charity No 207043
Issued: October 2025 DES9347_3

Cover image:
© ESA/Hubble.