Lewes Astronomical Society

Newsletter

April 2026

Welcome

Whether you're new to our society or you've been with us for a while, we want to welcome you to the April 2026 edition of our newsletter.

The LAS is a friendly and inclusive not-for-profit community for anyone with an interest in astronomy and space science. Our membership spans all levels of experience from complete beginners to professional astronomers, all united by a shared curiosity about the Universe. We are now one of the largest regional astronomical societies in the UK in terms of our membership.

We meet on the first Wednesday of most months at the Subud Centre in Lewes, where our programme of talks covers a wide range of topics related to astronomy. Guest speakers and society members alike contribute to our annual programme of monthly talks, with plenty of opportunity for questions and discussion.

You don't need to be a member to enjoy our events. Visitors can attend our monthly talks for £4 each. However, if you want to enjoy all the benefits of membership, please visit our website at www.lewesas.org.uk or contact our Membership Secretary, **Judith Pyett**, at membership@lewesas.org.uk.

Join the LAS Committee!

Our society is now one of the biggest astronomical societies in the UK, and this success is down to all of us. We want to offer a vibrant programme of talks by leading astronomers, the chance for people to look through telescopes at the night sky, an outreach offer for the local community and, most importantly of all, to be a friendly and inclusive society that welcomes people from all backgrounds.

A crucial part of that is our committee, with a small number of LAS members working behind the scenes to make it all happen. It's a huge pleasure to do this, and we encourage everyone to think about joining our committee. If you'd like to help steer the society for the year ahead, we are holding elections for all the committee posts at our AGM in June. If you're interested, do ask any current committee member what it involves – for most of us it means that a little effort makes great things happen. **You don't need to be an expert in astronomy**; you just need enthusiasm and a little spare time!

If you're willing to help us occasionally, but you don't want to serve on our committee, we would invite you to join our volunteers group. Please contact Dr **Kate Land** at kate.land@lewesas.org.uk for more information.

Artemis II

At last, we're going back to the Moon! To claim your boarding pass and fly your name around the Moon go to www3.nasa.gov/send-your-name-with-artemis/

The launch is planned for Wednesday 1st April, at 23.24 BST with a 2-hour window for the launch. This is very considerate of NASA, as we can still enjoy our meeting on Wednesday evening at the Subud Centre and be home in time to watch the launch.

Artemis II is a crewed lunar flyby mission and the first time humans will travel beyond low Earth orbit in over 50 years. It's part of NASA's Artemis program, which aims to return humans to the surface of the Moon and use lunar missions to prepare for future missions to Mars.

Four astronauts have been selected:

- Reid Wiseman (*Commander*)
- Victor Glover (*Pilot*)
- Christina Koch (*Mission Specialist*)
- Jeremy Hansen (*Mission Specialist, Canadian Space Agency*)

This crew will become the first humans to travel around the Moon since the Apollo 17 mission in 1972.

Artemis II's primary purpose is to prove that NASA's deep-space systems can keep astronauts alive and safe far from Earth. That includes validating Orion's life support systems, navigation, communication, control in deep space and Ground-to-Space operations involving real crew on board.

The mission also includes science and human health research, helping to understand how the deep-space environment affects astronauts — vital for future Moon landings and eventual Mars missions.

This mission will be the first crewed Artemis mission. It will also be the furthest distance any humans have travelled away from the Earth due its large orbit around the Moon.

Artemis II will prepare the way for Artemis III, which will stay in Earth orbit and aims to test rendezvous and docking

capabilities between Orion and commercial spacecraft needed to land astronauts on the Moon. NASA will announce specifics on the Artemis III mission design and crew closer to the 2027 launch. Artemis IV is scheduled for early 2028 when it aims to land humans on the moon, this was last achieved in 1972.

After liftoff from Kennedy Space Centre, Florida, Orion will enter orbit around Earth, then head out on a free-return trajectory that takes it around the Moon and back. Gravity from the Moon will help swing the spacecraft back toward Earth without needing extra propulsion.

The Artemis II comprises of the fully stacked Space Launch System rocket (core stage and solid rocket boosters) the Orion crew capsule, the launch abort system (for crew safety) and the umbilical tower with fuel, power, and data connections. The SLS is about 98 metres or 322 feet tall. On the launch pad the SLS has undergone a wet dress rehearsal. This is a critical pre-launch test where the rocket was fully fuelled with the cryogenic propellants to test for fuel leaks, fuel flow, tank pressures and pump functions. It also tests the launch pad fuelling system, sensors and ground to rocket communications.

Engineers then ran a full launch countdown from T-43 hours to T-0. This tests timing, software and the ground crew practice holds, aborts and any other anomalies. This is much more involved as Artemis II has a crew of 4 whereas Artemis I (which circled the moon in 2022) was unmanned.

The mission duration will be about 10 days.

Lewes Space Day

On Saturday 21st March, we opened the doors at All Saints Centre to around 500 people for Lewes Space Day. This is LAS's largest outreach event of the year, and only the second time we've run this day of talks. It is an opportunity for the society to invite speakers to Lewes from further afield than can usually make it on a Wednesday evening. It is also a chance to open our doors to a wider audience beyond those who typically attend our meetings.

While the society primarily exists for its members, these events reflect the fact that we are keen to support our local community, and inspire the next generation of budding astronomers - over 200 of our tickets went to children, for free.

We were delighted to be joined by *Bags of Books*, selling astronomy books for all ages, and *South Street Bonfire Society*, who ran a fully stocked bar. The day began with the inimitable **John Hinton**, whose wacky musical medley of science-related songs had the audience enthralled. Children in particular shrieked with joy at his impressions of Einstein and his songs about the Big Bang and the planets.

This was followed by a fantastic talk from LAS President Professor **Stephen Wilkins** about the James Webb Space Telescope (JWST) featuring a wonderful array of breathtaking images. Stephen was a last-minute stand-in for Penny Wozniakiewicz, who sadly couldn't attend, but as a seasoned speaker he was more than ready to amaze and delight audiences both young and old.

Meanwhile, outside in the sunshine, members of Lewes Astronomical Society were showing visitors the Sun using our hydrogen-alpha solar telescope, with over 100 people seeing sunspots – many for the first time. This provided perfect preparation for Lucie Green's talk at the end of the day.

Before that, the audience enjoyed an audio-visual treat from Dr **Eva-Maria Mueller**, who presented The Symphony of the Universe—a unique journey through the cosmos and the waves it contains. We were then honoured to welcome Dr **Steven Banham** from Imperial College, who spoke about how he and his team use the Mars Curiosity rover to explore the Martian surface and search for evidence of past life.

Finally, broadcaster and space scientist Professor **Lucie Green** wowed us with her talk on the Sun—its plasma eruptions, magnetic fields, and helical structures in its atmosphere. It was fascinating to learn about the pioneering satellites travelling close to the Sun, and just how much we are yet to understand about its dynamic surface. It was a fitting and inspiring way to end our symposium.

We are grateful to everyone who came to the Lewes Space Day, and particularly to the volunteers and speakers who made the event possible. Thank you.

Prof Lucie Green on stage, giving the final talk of the day about Unveiling the Sun.

Dr Steven Banham, Prof Lucie Green, and Prof Robert Massey – showing off their Save UK Astronomy stickers. See pages 10 and 11.

John Hinton doing his thing on stage!

Michael van Doorn manning our Hydrogen-alpha solar telescope, outside the All Saints Centre.

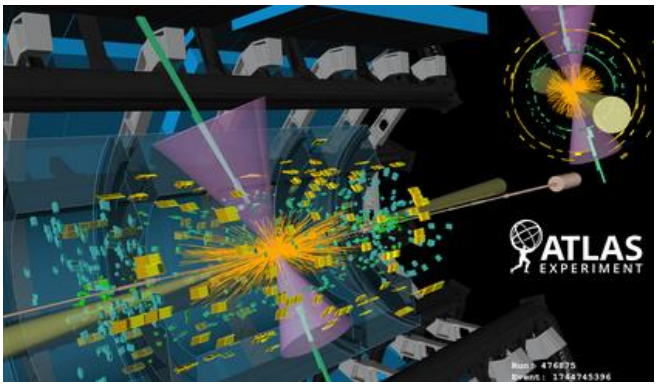
March Meeting

Since its development in the 1970s, the Standard Model of cosmology has arguably been the most successful scientific theory ever devised. However, despite overwhelming experimental evidence, we now know that it is incomplete.

Without the inclusion of gravity, dark matter, or a complete understanding of neutrinos, studies of 'Higgs portals' at the ATLAS experiment at the LHC are used to search for hints of new physics. One of these is the top quark: the heaviest fundamental particle ever measured.

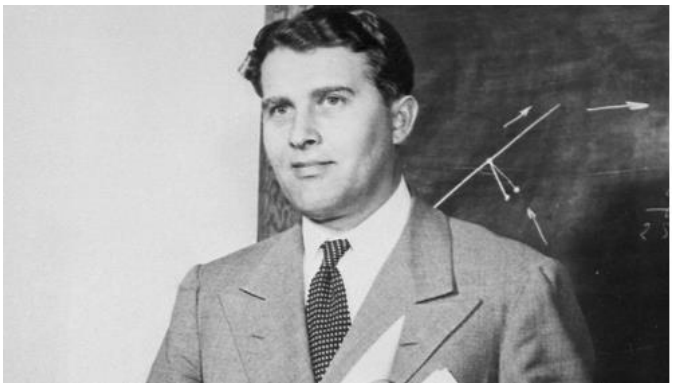
In fact, it is so heavy that it has unique properties which can be exploited to map physics beyond the Standard Model.

Caley Yardley explained how, by using the Higgs and ATLAS, we can advance our knowledge of particle physics and the early universe, and how her work on Top quark physics is advancing our understanding.



April Meeting

On Wednesday 1st April, LAS member **Richard Butchers** is giving a talk about the rocket scientist *Wernher von Braun* at the Subud Centre in Lewes.



Wernher von Braun (1912–1977) was the German man mainly responsible for the V-2 rockets launched against the allies during the second world war. In the final days of the war, von Braun and his group of rocket scientists surrendered to the American army. Subsequently, he became the leading figure behind the NASA rockets that took mankind to the Moon. He had been a Nazi Party and SS member who utilised slave labour from concentration camps, making his legacy controversial. It's a fascinating story.

Complimentary refreshments will be available. Everyone is welcome, non-members £4. Doors open at 7pm. The talk begins at 7:30pm.

The postcode for the Lewes Subud Centre is BN7 2DS. All the municipal car parks are free after 5pm in Lewes, with the nearest being in Brook Street.

Night Sky Guide for April 2026

The chart shows how the night sky will appear at 11pm at the start of April, 10pm mid-month, and 9pm at the end of April. The position and phase of the Moon are shown for the 20th, 25th, and 28th April. The centre of the chart represents the point directly overhead, known as the Zenith, and the edge around the chart represents the horizon with the directions for North, East, South and West indicated.

High overhead, Leo the Lion dominates the southern sky, its distinctive “sickle” shape marking the Lion’s head. To the east, Virgo rises with the bright star Spica, while Arcturus in Boötes glows orange-gold low in the east, one of the brightest stars in the northern hemisphere. Turning west, the familiar winter constellations begin their slow retreat, with Orion dipping toward the horizon by late evening.

Jupiter is still bright in the constellation Gemini, while Venus shines low in the west soon after sunset. Between 18th and 24th April, Venus will pass close to the Pleiades star cluster, creating a lovely sight in binoculars.

After four months without any meteor showers, the wait is finally over: the Lyrid meteor shower peaks on 22nd April. The predicted peak time is around 8:40pm, although activity could reach its maximum anytime between 5pm and 1am. Look towards the north-east and you may see meteors streaking across the sky from the area near the constellation Lyra. The Moon will be above the horizon at the time, so keep it behind you and look towards the darker part of the sky to maximise your chances of seeing a meteor.

The Lyrids are one of the earliest recorded meteor showers, with observations by Chinese astronomers dating back to 687 BCE.

There is also the possibility of a bright comet in April. Comet MAPS (C/2026 A1) was discovered on 13th January 2026. Because of its orbit, it belongs to a family of comets known as the Kreutz Sungrazers. They are thought to originate from a very large comet that broke up many centuries ago, leaving numerous smaller remnants in orbits that pass extremely close to the Sun. If this comet survives its close approach to the Sun at the end of March, we could see a spectacular object in the evening skies during the first week of April. To see it at its best, look towards the western horizon 20–30 minutes after sunset.

Star chart by Sarah Carson
Text by Paul Whitmarsh

Harvey’s Brewery Tour

In our effort to support local businesses, we are now selling tickets for our annual tour of Harvey’s Brewery in Lewes. This popular social event takes place from 6:15pm on Wednesday 1st July. Tickets are limited and can be purchased at any of our meetings. £12 for members and £15 for non-members. Strictly adults only.

Save UK Astronomy

Astronomy and space science, and particle and nuclear physics are being targeted for the worst cuts in modern times. This doesn't just impact astronomy, but also economic growth. The majority of science PhDs and post-docs end up in industry, with fabulous transferable skills.

The Royal Astronomical Society (RAS) is calling on its members to help force the Government to reconsider its proposed cuts to astronomy and space science: https://ras.ac.uk/news-and-press/news/research-funding-cuts-threaten-generation-scientists

If plans by the UK's science funding body go ahead, we won't be able to benefit from Britain's membership of CERN and other large international projects, says Jon Butterworth, professor of physics at University College London: https://www.theguardian.com/commentisfree/2026/feb/16/cuts-physics-research-uk-scientists-britain-cern

Chris Lintott, Professor of Astrophysics at Oxford's Department of Physics, responds to the news that University funding for astronomy and physics research will be cut by almost a third: https://www.ox.ac.uk/news/2026-02-02-expert-comment-cuts-fundamental-research-will-hurt-uk-s-leadership-astronomy

Financial Times reports that top academics warn UK physics cuts threaten effort to boost economy: https://www.ox.ac.uk/news/2026-02-02-expert-comment-cuts-fundamental-research-will-hurt-uk-s-leadership-astronomy

Open letter of support from industry against cuts to PPAN science: https://industry-openletter-stfc.github.io/index.html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