Lewes Astronomical Society

Newsletter

June 2026

Welcome to our June Newsletter

Welcome to the June 2026 edition of the LAS newsletter. This month marks the last of this season's programme of talks on Wednesday 3rd June following our short AGM. Sadly, our amazing Outreach Officer, Dr Kate Land, is stepping down from our committee. We proudly kick off this month's newsletter with a lovely farewell report from Kate…

So long, and thanks for all the fish

With a heavy heart, I will be leaving the committee on 3rd June. I joined the committee three years ago after muttering at the AGM *"I don't have much time, but I could be some sort of Outreach Officer*". I had dabbled in outreach since completing my Cosmology PhD in the 00's. Although the Outreach Officer role didn't exist then, the team welcomed me on board.

A budding astronomer in Lewes, back in 1989.

I had recently moved back to Lewes, with my husband and kids, having grown up in Lewes, but been elsewhere since heading for university in the late 90s. To be honest, I was still in shock at being back, and I remember how pleased I was to see one of the yellow LAS posters in the window of a pub in Lewes, advertising a talk by Dr Robert Massey ("oooh, that's the RAS guy"), and knew I wanted to check it out.

Little did I know how involved I would get! What started as a plan to help at the odd STEM fair soon saw me adept at making straw rockets, toilet paper solar systems, constellation tubes, sand-pit craters, and dry-ice comets. Moving beyond outreach, I got stuck into society admin, helping to secure a new venue for the growing organisation, and designing banners, posters, lanyards and leaflets, and stepping in as vice chair on the very occasional moments when Robert wasn't available.

Kate is very enthusiastic about lanyards. Well, who doesn't enjoy wearing a lanyard?

I also enjoyed re-familiarising myself with my cosmology research and giving a few talks at the LAS monthly meetings

There are so many highlights from the last three years, and I've loved being part of a terrific team and seeing the organisation grow so much. One highlight for me was the first STEM symposium we ran at All Saints Centre in November 2024, as part of the Lewes STEM Festival. We had no idea if people would come to an afternoon of talks, but they did! And it was lovely to be re-acquainted with Prof Chris Lintott, whom I had worked with as a postdoc, but hadn't met up with for many years.

Enjoying a well-earned drink with Prof Chris Lintott after our STEM Symposium in 2024.

Another highlight was observing the partial solar eclipse on Cliff Bridge in March 2025. This was our first solar observing pop-up event, driven by Dr Robert Massey, and I really got the bug for accosting the public and making them look up!

Hearing people say "wow", and "ooh aah" as they see something unexpected is so much fun. We have repeated this many times since, with our own Hydrogen-Alpha telescope, purchased gratefully with a Lewes Town Council community grant.

Kate talking about the Universe at Southover CofE Primary School, May 2026

I'm also super proud of the school events we've done. I think I've delivered talks to over 500 kids in the past few years, and December 2025 saw us run our first evening observing session for kids, at Western Road Primary School. I was nervous about organising an evening thing with kids – partly because we are at the mercy of the weather, but I also didn't want to lose kids in the dark! It went really well, and – thanks to Robert Massey and Paul Whitmarsh – the kids all got to see Saturn, including its rings, and a fabulous nearly-full moon in all its glory.

Another highlight was stargazing on the Downs with LAS members on 10th May 2024, when we unexpectedly enjoyed the most amazing aurora event.

We had already planned a stargazing event at the old racecourse for that evening, but little did we know what was going to happen. It was so special to be up on the hill that evening - and without the LAS I might have missed it.

The Aurora, May 2024, at Lewes Racecourse, with Dr Robert Massey and Jane Penny. IMAGE CREDIT: Tom O'Malley.

A sad part of my time on the committee was the sudden loss of Richie Jarvis in November 2025. I didn't know him as well as many others, but in the little time we had overlapped, he had been a very enthusiastic outreach advocate – full of ideas and wisdom, having run many star parties, and being a founding member of the Lewes STEM fair, along with Prof Stephen Wilkins, the President of our society.

It is an honour to be custodian to a number of his amazing astrophotography images, which we continue to use for outreach.

My only regret while being part of the LAS committee is that I haven't actually done much astronomy! I am privileged to own a SeeStar S50, and I've had a few experimental hours with it, but I tend to spend my evenings enjoying wine, TV, and central heating. So perhaps I am not an astronomer after all!

However, the amazing thing about being a member of the LAS is the wide-ranging interests we have in the society – the majority of our members probably aren't active astronomers, but we still get stuck into many astro-related topics regardless. We also get to enjoy the photographic results from those with both the stamina to stay up all night and the expertise to take wonderful images.

I am sad to be leaving the committee, but I know the team is going to thrive and serve its members well. I shall remain an LAS member forever.

In September, I will start training to be a secondary school maths teacher, so I can't commit fully to the LAS while doing that. But I'll be back! And perhaps, just perhaps, I will finally put down that glass of wine, and get off the sofa for some real observing.

Dr Kate Land
Outgoing LAS Outreach Officer

Artemis II: back to the Moon

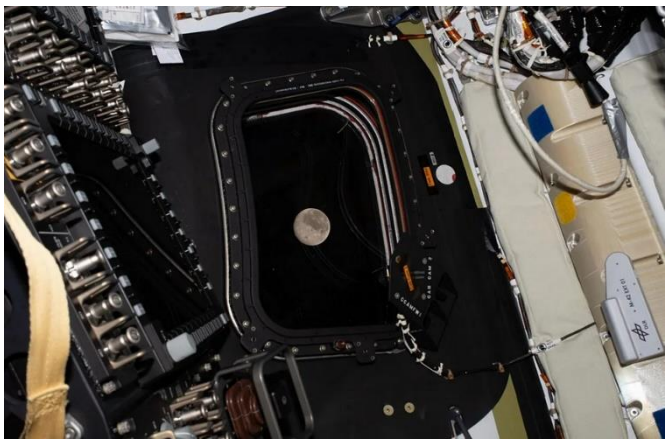
On 1st April the Artemis II crew launched for the Moon, in the first crewed mission to our natural satellite since 1972. Reid Wiseman, Victor Glover, Cristina Koch and Jeremy Hansen spent ten days on a voyage from Earth, travelling around the Moon in a free return trajectory, mostly utilising the gravitational fields of the two worlds to steer their spacecraft.

Cameras capture Artemis II's launch. IMAGE CREDIT: NASA/Aubrey Gemignani

Artemis carried the first woman astronaut to travel to the Moon (Koch), the first astronaut of colour (Glover), and the first non-US astronaut (Hansen). Wiseman made a point of describing the mission as “For all humanity”, an updated echo of the Apollo era “For all mankind” slogan and its all-male crews, and in contrast to the more nationalist rhetoric from the White House.

This mission has been a long time coming. The US, China and India all have lunar ambitions, and the American programme faltered with cancellations, the high cost of the Space Launch System that eventually carried Artemis, and even today the absence of a viable landing craft (SpaceX has yet to make Starship safe enough to carry people to and from the Moon).

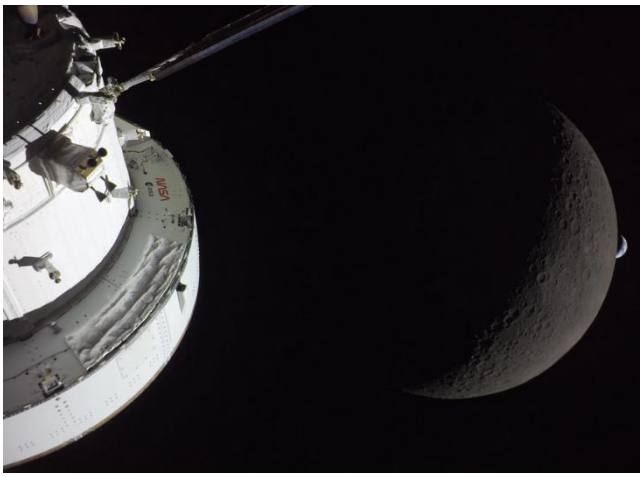
The launch itself was close to perfect. Artemis reached its first path in space eight minutes after take-off, and 50 minutes and then another hour later the second stage engine fired twice more to move it into a high elliptical orbit. Trans-lunar injection, which set them on course for the Moon, followed the next day.



The Moon from Orion's window. IMAGE CREDIT: NASA

The crew saw the Moon growing and the Earth shrinking as they travelled outwards, culminating on 6th April, when they swung around the far side of the Moon, which was only 20% illuminated, losing radio contact entirely for 40 minutes.

Unlike Apollo missions, Artemis II flew more 6500 km above the lunar surface, setting a new distance record of 406,771 km from Earth, a record held by the ill-fated Apollo 13 since 1970.



Orion, the Moon, and Earth. IMAGE CREDIT: NASA

After an uneventful trip back home and some nail-biting minutes of re-entry, the astronauts splashed down in the Pacific on 11th April.

Artemis II crew hug. IMAGE CREDIT: NASA

Orion splashing down. IMAGE CREDIT: NASA

As an exploration mission, the scientific return from Artemis is relatively limited. Instead, the 'Moon joy' so many of us felt centred on the stories of the crew. The highlight was probably Reid Wiseman offering the name Carroll to a lunar crater to commemorate his late wife, and each day we saw pictures of the astronauts simply enjoying the ride, in a visible demonstration of their own humanity as part of the one we all share.

If everything goes to plan, Artemis III will follow late next year, when astronauts will test out docking with different landing systems.

Artemis II astronauts (clockwise from bottom) Reid Wiseman, Christina Koch, Victor Glover, and Jeremy Hansen. IMAGE CREDIT: NASA *Johnson Space Center*

The real prize – landing people on the Moon – should come the following year. 56 years after Apollo 17 took off from lunar soil and before many LAS members were born, we may finally be on the brink of a permanent lunar presence.

On a personal note, the Artemis II crew sought advice from the British artist Luke Jerram and myself on how the Moon is represented in different cultures, signifying their investment in what they themselves describe as the spiritual side of their journey.

Dr Robert Massey
LAS Chair

May Meeting

On Wednesday 6th May LAS committee member Behnood Bandi gave a talk on Mapping the Universe: A Journey Through the Past, Present, and Future of Sky Surveys at the Subud Centre in Lewes.

Behnood is a postgraduate researcher at the University of Sussex, and co-leader of the 4MOST Science Communication Working Group. He explained the story of sky surveys and how these ambitious projects are helping scientists unlock some of the biggest mysteries of the Universe, from dark matter to the evolution of galaxies.

Solar Observing

The society enjoyed another busy morning of solar observing on Saturday 23rd May, on Cliffe Bridge in Lewes. These pop-up events are organised at short notice, depending on the weather and availability of our volunteers.

Pre-AGM Survey

We want to thank the 71 people who took part in our survey for spending just a few minutes of their time to give very useful feedback about our society. We hope to publish an overview of the results at our AGM, and by email to everyone later.

AGM and our June Talk

On Wednesday 3rd June, our meeting at the Subud Centre in Lewes will start with our Annual General Meeting, which will take only about 20 minutes, followed by a refreshment break before our main talk of the evening.

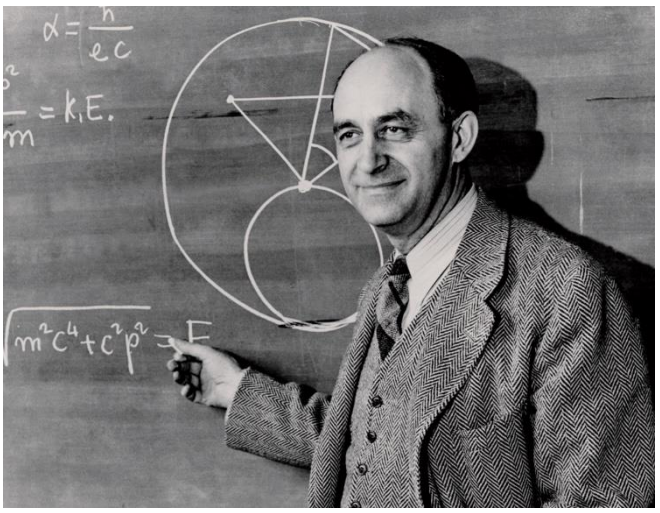
Everyone is welcome to the event, but we respectfully ask that all attendees arrive at the venue by 7:30pm. Non-members £4. Members can vote at the AGM using their voting cards, which will be provided on admission.

After our complimentary refreshment break, LAS member Tony Gwyther will give his talk, **Neutrinos – The Quest for the Ghost Particle**.

The discoveries of X-rays by Wilhelm Röntgen in 1895, radioactivity by Henri Becquerel in 1896, and the electron by J. J. Thomson in 1897 revolutionised our understanding of the atom. That same year, Ernest Rutherford identified two new forms of radiation, alpha and beta rays, later adding gamma rays. He would also go on to identify the proton, the positively charged nucleus of the hydrogen atom.

The principle of energy conservation had long been established, but in 1905 Albert Einstein's equation, $E=mc^2$, showed how mass and energy are related.

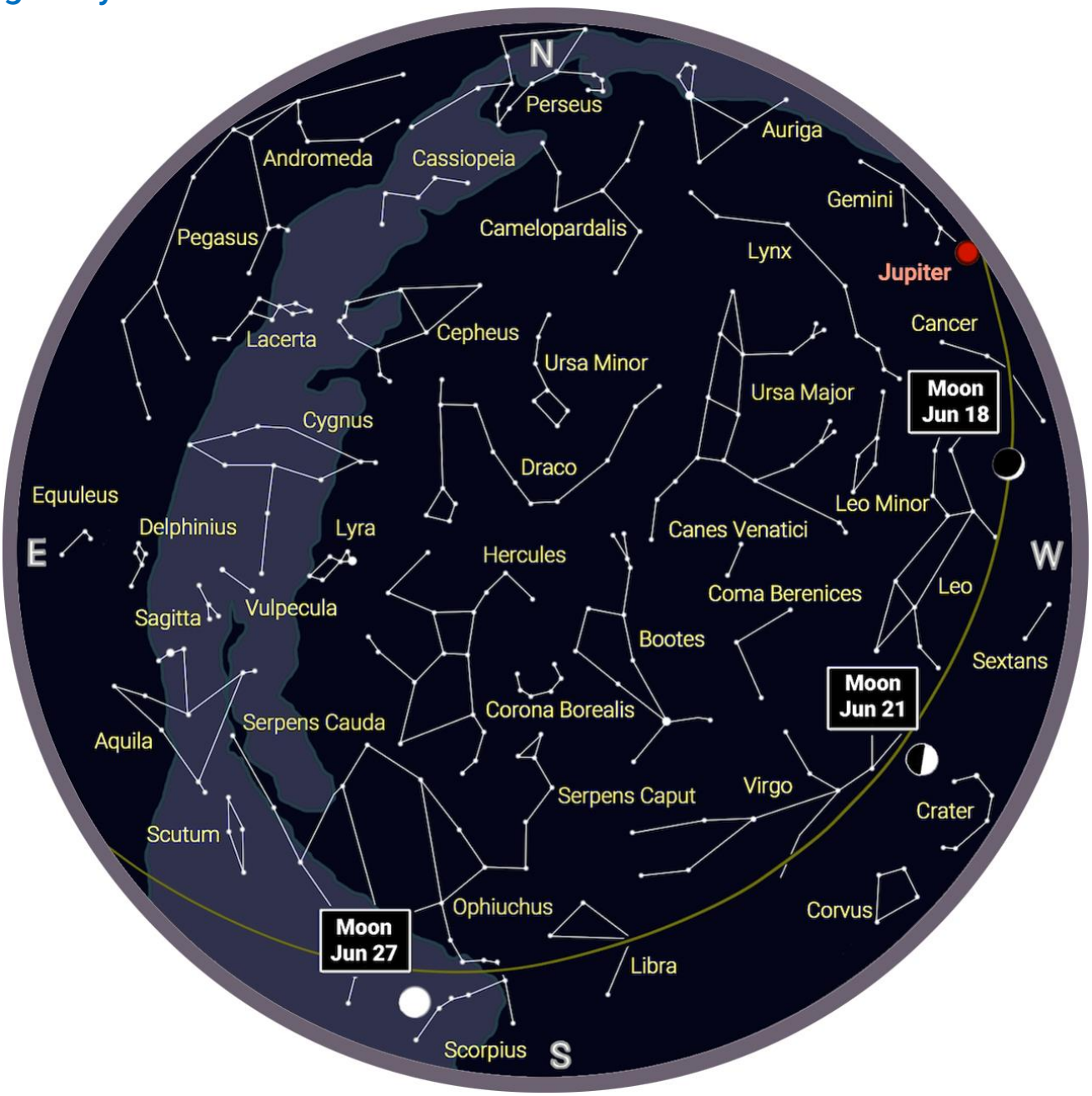
While alpha and gamma decay appeared to obey this principle, beta decay seemed to violate it, as the emitted electrons carried varying amounts of energy. Unwilling to abandon energy conservation, the Austrian physicist Wolfgang Pauli proposed an unseen, electrically neutral particle carrying away the missing energy. He initially called it the neutron, but after James Chadwick discovered the true neutron in 1932, Enrico Fermi renamed Pauli's particle the neutrino, or "little neutral one", and developed the theory further.



Enrico Fermi, the man who named the neutrino

Another 25 years passed before neutrinos were finally detected by Fred Reines and Clyde Cowan. Later experiments by Ray Davis and others studying solar neutrinos helped reveal the nature of one of the most elusive particles in physics. This is their story.

Night Sky Guide for June 2026



The chart shows how the night sky will appear at midnight at the start of June, 11pm in mid-month, and 10pm at the end of June. The position and phase of the Moon are shown for the 18th, 21st, and 27th. The centre of the chart represents the point directly overhead, known as the Zenith, and the grey edge around the chart represents the horizon, with the directions for North, East, South and West indicated.

June heralds summer and the shortest nights. Venus will shine brightly after sunset in the west throughout the month.

Scorpius is low in the south, with the red star Antares, the “rival of Mars”, barely 10 degrees above the horizon.

Much higher in the sky above Scorpius is Hercules, whose central “keystone” is marked by four bright stars. To the west lies Boötes with another bright red star, Arcturus. Between them sits the faint constellation of Corona Borealis, the Northern Crown.

After sunset on 16th June, the just-past new Moon is north of Mercury low in the western sky. Good luck if you are able to spot them. The following evening, on 17th June, the waxing crescent Moon is north of Jupiter and south of Venus in the western sky.

In the first edition of our Star Guide in May 2024, we talked about the recurrent nova **T Corona Borealis** and the possibility that it could brighten enough to appear as a ‘new’ star in the night sky. “Nova” means new; “recurrent” means it happens repetitively. So far, T Corona Borealis has not erupted.

The star, a white dwarf about the size of the Earth but more massive than the Sun, is stealing gas from its companion. There is a limit to how much gas it can accumulate; once that limit is reached, the star erupts in a powerful explosion.

The star itself survives but brightens by around 10,000 times and could become as bright as the North Star, Polaris, for a week before fading back into obscurity for another 80 years.

Astronomers have only recorded four eruptions of T Corona Borealis since 1217, but believe the cycle is roughly 80 years. At over 3,000 light-years away, predicting the exact moment is difficult, though current estimates suggest it could occur at any time. Whenever it happens, it will deepen our understanding of the lives of stars.

Finally, during the summer nights, keep an eye on the northern horizon for electric-blue noctilucent clouds in the northern sky. These form when sunlight reflects off tiny ice-coated dust particles high in the mesosphere, about 80km up, much higher than any normal clouds.

Star chart by Sarah Carson
Text by Paul Whitmarsh

Summer Solstice Walk 21st June

Once again, we are holding a free and informal gathering on the Lewes downland to celebrate the Summer Solstice on Sunday 21st June. Weather permitting, we will have the opportunity to enjoy the breathtaking view of the Ouse Valley looking west as the sun goes down. This is a free event for everyone and open to all, so bring along your friends and family. This is a dog-friendly event. See our Summer Solstice 2026 Sunset webpage.

We will meet at the Phoenix Causeway car park in central Lewes, BN7 2JW, near the Dorset Inn. Setting off at 8pm, we'll walk into the scenic Malling Down Nature Reserve and climb Malling Hill to watch the sunset at about 9:23pm before returning to the Phoenix Causeway car park.

Harvey's Brewery Tour 1st July

Join us for our annual tour of Harvey's Brewery in Lewes. Tours normally cost £18 per person, but we have arranged discounted prices of £15 for non-members and just £12 for our members. Strictly adults only. No high-heel shoes!

This popular social event takes place from 6:15pm on Wednesday 1st July. Our private tour usually lasts longer than a normal 90-minute tour, thanks to the enthusiasm of our group – especially when it comes to tasting a wide variety of beers to conclude the evening. See www.lewesas.org.uk/harveysbrewery26 for full details.

Tickets must be purchased in advance. To find out how to buy tickets, send an email to events@lewesas.org.uk. Tickets sell fast and we have nearly sold out, but we can add you to a waiting list in case we have any cancellations.