
Journal

of the

Nottingham Astronomical Society

October 2025



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Thursday, October 2nd

**Nottingham Emmanuel School
Gresham Park Road,
West Bridgford,
Nottingham, NG2 7YF**

7:45pm (doors open at 7:15pm)

**This evening we welcome
NAS Member**

Dave Sarras

who will be speaking on

Interstellar Objects

Chairman's Message, October 2025

Dear Members,

We're now past the equinox and starting to get some proper dark (and cold!) skies. We've already started out autumn program of talks with one on Messier and another on research. We have some talks coming up on interstellar wanderers of which we've had a few come through the solar system from elsewhere.

We're hoping to do some observing at the Observatory coming up and we will let you know when the weather and conditions align!

Best wishes and clear skies,

Julian
NAS Chair

Sky Notes

October 2025

Compiled by Roy Gretton



All times given below are in British Summer Time unless otherwise stated

British Summer Time ends at 2 am on October 26th. Clocks should be put back one hour at that time.

PHASES OF THE MOON

Phase	Date
Full Moon	October 7 th
Last Quarter	October 13 th
New Moon	October 21 st
First Quarter	October 29 th

This month the Moon is closest to Earth on the 8th, and furthest on the 23rd.

THE PLANETS

Mercury spends the whole of this month as an evening object, not especially well placed for observation due to its increasingly southern declination. It will reach greatest eastern elongation on October 29th, when it will be 24 degrees from the Sun but nearly 23 degrees south of the celestial equator.

Venus continues its long morning apparition which began on March 23rd. Although it remains bright (magnitude -3.9) it will become less prominent as its elongation from the Sun diminishes, ending the month at 16 degrees.

Mars must now be regarded as unobservable, its tiny disk lost in the evening twilight.

Jupiter will be coming to greater prominence in the morning sky as the weeks progress, increasing in brightness from magnitude -2.1 to -2.4. It will be rising a few minutes after midnight as October begins, and shortly after 9 pm (UT) at the close of the month, flanked by Pollux to the northeast and Procyon to the southwest.

Now is a good time to observe **Saturn**, as it passed through opposition on September 21st, and will be less than 4 degrees south of the celestial equator throughout October.

Saturn's largest moon, **Titan**, will be occulted by the planet at 23:56 **BST** on October 13th, and at 20:38 **UT** on the 29th. There will be a transit of Titan's shadow beginning at 5:18 **BST** on the 6th.



Saturn imaged by the Editor
on August 28th

Uranus, magnitude 5.6, is 20 degrees north of the celestial equator in the constellation of Aries.

Neptune is a magnitude 8 object in Pisces, about 2.5 degrees north of Saturn.

METEORS

Conditions are very favourable this year for observing the **Orionids**, which reach peak activity on the night of October 20th – 21st, close to the New Moon. About 20 events per hour are expected under ideal conditions. The peak is broad, so some Orionids may be seen for a week or two before and after the peak.

Remembering the Perseids

John Dignan captured this very pleasing image of a Perseid meteor from his garden at Barrow upon Soar at 23:07 BST on August 12th, using a Canon EOS 90D camera with an 18mm lens at f/3.5. It was a 6 second exposure at ISO 1600. The stars Mizar and Alcor in Ursa Major are near the tip of the trail.



DIARY DATES 2025

Monthly Meetings of the Nottingham Astronomical Society

1. Meetings at
Nottingham Emmanuel School
Gresham Park Road,
West Bridgford,
Nottingham, NG2 7YF

Held on the **FIRST Thursday** of each month **(unless otherwise stated)**
except **August**

Doors open at 7:15pm for 7:45pm start.

*These events are normally centred around a talk by a visiting speaker,
except Quiz Nights, etc, when NAS members provide the activities.
Normally we have a **Helpdesk** open at each meeting.*

Date	Topic	Speaker
2 nd October	Interstellar Objects	Dave Sarras
6 th November	Supermassive Black Holes	Professor Omar Almaini University of Nottingham
4 th December	TBA	

2. Social and Practical Astronomy Meetings at the Burnside Memorial Hall, Plumtree

Church Hill, Plumtree, Nottingham, NG12 5ND
Held on the **THIRD Thursday** of each month from **7:30pm**

*These meetings are of a more informal nature, providing opportunity for
members and guests to share their hobby over a cup of tea or coffee,
as well as listening to a short talk or discussion*

The next meeting will be on **October 16th**

Social and Practical Astronomy, Plumtree, September 2025

The **September** meeting at Plumtree saw our chair, Julian Onions, talking about astronomical research, and in particular about a long-term project he has been involved with for over a decade. We learnt about The Three Hundred Project which is an enormous dataset of galaxy clusters and their environment generated by a simulation on a supercomputer and heard how the dataset has been interrogated to look at the largest galaxy clusters and how they

change in mass over time. Julian had been leading on a specific area of research looking at dark matter haloes at different points in the development of the simulated patch of the Universe and how they change over the course of many billions of years. We learnt the steps Julian has had to take to pull his research together, and in condensing his data down into a research paper. Just last month, Julian's paper was published in the Monthly Notices of the Royal Astronomical Society (MNRAS).



You can read the paper here: <https://academic.oup.com/mnras/article/542/2/1477/8223404>



Whilst Julian was slaving over a computer to write his talk, our secretary, Chris, was slaving over a hot oven making yet another gorgeous cake which unfortunately only lasted about 0.00000000000027573732% of the age of the Universe. Thanks also to Marcus for bringing a gluten and lactose free chocolate cake made by his wife.

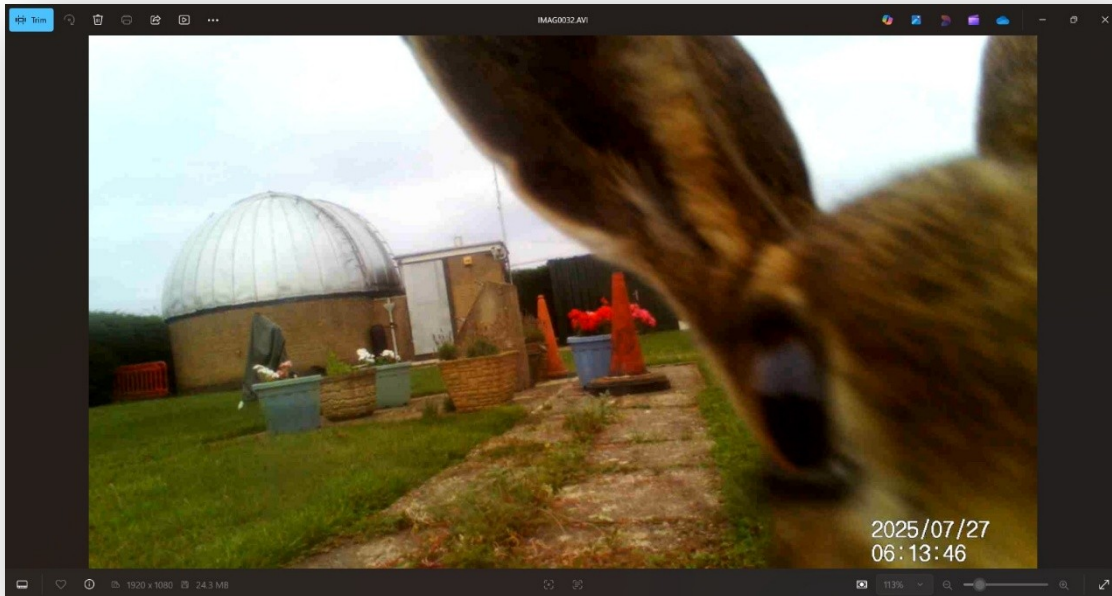
The topic of the **October** Plumtree is a talk by member Paul Carpenter about his home observatory. I've had a preview of some of this and it looks to be a really interesting tale.

James Dawson

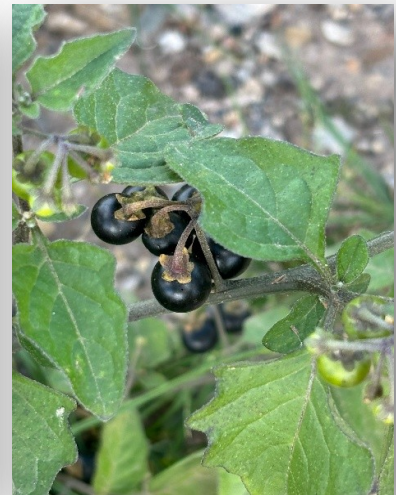
helpdesk@nottinghamastro.org.uk

Wildlife at the Observatory

We often see hares and rabbits at the observatory, alongside many birds including the pied wagtails, kestrel, sky larks, swallows, partridge, red kites, buzzards, crows, and pigeons. I'd set up a wildlife camera to see what happens when no one is there and one of the funny images shows a hare looking right into the camera. We have seen bats too, and we know there is at least one owl as find its pellets on a regular basis and have seen its feet on the all sky camera.



Chris discovered some white campion (*Silene latifolia*) whilst weeding around the solar panels, and I spotted some black nightshade (*Solanum nigrum*) whilst mowing. The evening primrose comes every year and is one of my favourites.



James Dawson
helpdesk@nottinghamastro.org.uk

Summer Nebulae

Imaged with a Canon 700Da camera and a Celestron 11-inch SCT.



Above left: NGC6995, part of the Veil Nebula in Cygnus – 144 minutes of data

Upper right: NGC7380, in Cepheus – 47 minutes of data – 56 minutes of data

Lower right: NGC6888, the Crescent Nebula in Cygnus – 47 minutes of data

Roy Gretton

Autumn Dawn

Chris Sneddon captured this image of the sunrise on September 23rd, with the suggestion that the cloud formations may be described as a “mackerel sky”.



Curiously, my 1954 edition of *Norton's Star Atlas* quotes Sir John Herschel as describing the appearance of the Orion Nebula, M42, as being “like the breaking up of a mackerel sky”.

The Nottingham Astronomical Society: E - SERVICES

Whether or not you are a NAS member, you can keep up to date with details of the Society's

NAS on Facebook

You are welcome to connect with other members and friends of the NAS on Facebook by going to: <http://www.facebook.com/nas.org.uk>

NAS on X

The Society has an X account at <https://twitter.com/NottinghamAstro>

NAS Journal e-mailing list

To register for your monthly e-mailed link to the NAS Journal, just e-mail membership@nottinghamastro.org.uk

You don't have to be a Society member to take advantage of this service.

If you happen to change your email address, please remember to inform the Society by emailing us at membership@nottinghamastro.org.uk

Advertisements

FOR SALE

Celestron Astro Fi 5" Schmidt-Cassegrain telescope



Excellent condition. **£285** ono.

Also have a selection of eyepieces which could be included, and a Celestron NexYZ 3-axis universal smartphone adapter.

Seller lives in Bottesford but could deliver to the Nottingham area.

Contact Roger on 07960911804 or rbrogerblackburn@gmail.com

6-inch telescope and items for sale

I am thinking of upgrading my 6-inch scope and equipment to 8-inch and would therefore have the following items available for sale:

- Celestron NexStar 6SE fitted with Bob's Knobs
- Astrozap dew shield
- Astrozap dew strip
- Farpoint Bahtinov mask
- Kendrick solar filter with solar finder
- Geoptik pack-in bag for scope transport
- Handset bracket 3D-printed by RVO

Please note that the scope includes all accessories, tripod, original packaging etc. as per the manufacturer's specification. The scope and all other items are just over a year old and in excellent condition.



I would prefer to sell these items as a complete set. The buyer would then be ready to start observing immediately. The price would be negotiable, but we could start talking at £900. The items can be inspected at my home in Keyworth, and I would be able to deliver at a reasonable distance.

Sam Boote sam@boote.myzen.co.uk
or at Society meetings

FOR SALE

Dew Shield for 11-inch Schmidt-Cassegrain Telescope by Lynx Astro

Unused.

With built-in heating element, which would require a 12v supply.



£20 (list price £62)

Meade Series 4000 Super-Plossl Eyepieces

Standard 1.25-inch diameter. Both in mint condition



15 mm focal length **£20** (list price £34)

40 mm focal length **£35** (list £65)

Contact **Roy Gretton**, 07483868162
journal@nottinghamastro.org.uk

Telescope for Sale

Genuine reason for sale, due to shoulder injury I find it difficult to cope with this large scope. Price are negotiable , but comes as a complete package, delivery can be arranged I am based near Burton on Trent.

£200 ono

Sky Watcher D=200mm F=1000mm Parabolic Reflector(200PDS)

Crayford dual speed focuser with electric control

35mm extension eyepiece tube and Coma corrector

Bahtinov Mask

Dew Shield

Finder scope

Telrad Base and Telrad

Kendrik Baader film solar filter

Seymour glass solar filter

Celestron collimating eyepiece, Next Gen Laser Collimator.

Contact Pete Hill at peter_j_hill@hotmail.com

Nottingham Astronomical Society

Affiliated to the British Astronomical Association
Member of the Federation of Astronomical Societies
Supporters of the Commission for Dark Skies

CHAIRMAN:

Julian Onions

email: chairman@nottinghamastro.org.uk

VICE CHAIRMAN:

James Dawson

email: vicechairman@nottinghamastro.org.uk

SECRETARY:

Chris Sneddon

email: secretary@nottinghamastro.org.uk

TREASURER:

Richard Severn

email: treasurer@nottinghamastro.org.uk

JOURNAL EDITOR:

Roy Gretton

email: journal@nottinghamastro.org.uk

MEMBERSHIP SECRETARY

Richard Severn

email: membership@nottinghamastro.org.uk

WEBMASTER:

Leigh Blake

email: leigh@nottinghamastro.org.uk

OBSERVATORY DIRECTOR:

James Dawson

email: observatory@nottinghamastro.org.uk

LIBRARIAN:

Holly McNiven

Meetings

Our formal meetings, often with an illustrated talk by a guest speaker, **normally** are held on the first Thursday of each month (except in August) at:

Nottingham Emmanuel School
Gresham Park Road,
West Bridgford,
Nottingham, NG2 7YF

Doors open	7:15pm
Meetings start	7:45pm
Meetings end	9:15 pm

These meetings are open to the public, and visitors are welcome to attend, subject to a charge of £5 per meeting for adults (£1 for concessions).

Annual subscriptions 2025

Individual	£40
Family (maximum of two adults, and children/students living at the same address)	£55
Under-18s and full-time students	£5

Subscriptions become due on 1st January. Half-price subscription is charged if joining after 30th June (minimum subscription £5).

Please make cheques payable to:
Nottingham Astronomical Society.

If you would like more information about the **Nottingham Astronomical Society**, or would like to become a member, please contact membership@nottinghamastro.org.uk or speak to any NAS committee member at one of our regular monthly meetings.

The Nottingham Astronomical Society

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