
Journal

of the

Nottingham Astronomical Society

April 2024



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Thursday, April 4th

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

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

This evening we welcome

Prof Anne Green
of the University of Nottingham

who will be speaking on

The Search for Dark Matter

Chairman's Message, April 2024

Dear Members,

It looks like spring is definitely coming in now. Quite a bit of rain but some lovely sunny days. The new road at the observatory seems to be holding up so we're hoping to have some more open evenings there. The next main meeting we welcome Professor Anne Green from Nottingham who will tell us how the search for dark matter is going. She is one of the top experts in the field, so we should have some up to date information. In April there is the US Solar Eclipse, and we're losing James and Richard as they go and attempt to track it down. Hope they get great weather, and will bring back some pictures for a future presentation! Meanwhile we'll have to get by without their help during April!

Best wishes and clear skies,

Julian
NAS Chair

Sky Notes

April 2024

Compiled by Roy Gretton

All times given below are in British Summer Time



PHASES OF THE MOON

Phase	Date
Last Quarter	April 2 nd
New Moon	April 8 th
First Quarter	April 15 th
Full Moon	April 23 rd

This month the Moon is closest to Earth on the 7th, and furthest on the 20th.

THE PLANETS

For keen planetary observers, this is a very lean season indeed!

Mercury may be glimpsed low in the west after sunset on the first few evenings on this month, but will soon disappear as it heads toward inferior conjunction on April 11th.

Venus is now disappearing into the dawn glow, and by the end of the month will be only 10 degrees from the Sun.

Mars (magnitude 1.1) rises less than one hour before the Sun and should be regarded as unobservable.

By the close of this month, **Jupiter** will be setting only an hour after the Sun, and hence the current apparition will be drawing to a close. Conjunction with the Sun will occur on May 18th, but we can look forward to the next opposition which will take place in early December.

Saturn is slowly creeping away from the Sun in the morning sky, but is still effectively unobservable.

Uranus will be in conjunction with Jupiter on April 20th, when the gas giant will pass half a degree to the south of the ice giant. The two planets will be setting just 2 hours after the Sun.

Neptune is a morning object but too close to the Sun to be observed.

METEORS

April's main shower, the **Lyrids**, occurs under very unfavourable conditions this year, with maximum activity expected on the 22nd, the night before Full Moon.

DIARY DATES 2024

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
April 4 th	The Search for Dark Matter	Prof Anne Green University of Nottingham
May 2 nd	SMILE! Revolutionising our views of the Sun-Earth connection	Dr Jennifer Carter University of Leicester

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 **April 18th**

Social and Practical Astronomy, Plumtree, March 2024

Our **March** talk at Plumtree was by NAS member Graham Winstanley. Graham is also the secretary of Lincoln Astronomical Society, and the treasurer of the British Astronomical Association. Graham's talk was titled "Brownie box camera to CCD" and took us on a journey of the cameras he has used to take pictures of the sky.

As well as showing us the cameras and talking about, we also saw some of Graham's other astronomical equipment, mounts and telescopes, and learnt about his current routine when undertaking astrophotography. Graham also talked about the processing of his astrophotography data and the software he uses. At the end of the talk, we were treated to some of his images and saw how improvements in his technique and equipment have resulted in improvements in the clarity and detail of the images he has captured of some of the beautiful objects in the sky above our heads. Thank you, Graham. *[Graham pictured below pointing to some of his old cameras]*

Graham has kindly provided a link to his presentation, which can be found at

Brownie Box Camera to CCD.pptx - Microsoft PowerPoint Online



Chris made a wonderful coffee cake that didn't last very long and I only got one slice!

In **April**, member Joe Colls will be giving us a talk on a space-exploration topic, a must for anyone interested in rockets and space travel.

James Dawson

helpdesk@nottinghamastro.org.uk

My early days of astrophotography

Graham's talk made me think of my early days of astrophotography. I suspect I was 14-15, so this would be the mid/late 1980s. A family friend gave me a Zenit 12XP, a 35mm film camera. I had been messing around with general photography for several years already with a cheap point and press 110 film family camera, and very cheap single use cameras which were fashionable at the time (I can't recall what film these had inside). Me, right, aged 16/17.



Having the Zenit took me to another level though. I managed to get a physical shutter release cable about a foot or so long, and a tripod. I can't recall what lens the camera had, but I suspect it was 50mm. At about that same time our neighbour (this was rural Warwickshire so the next-door neighbour lived a mile away) had their friend from America visit for the summer and she was a school teacher in West Virginia, and an amateur photographer. She gave me basic camera lessons about f/stops, film ISO speeds, light metering (as there was no automatic setting). She was also an amateur astronomer, and again I'd been looking at the sky with binoculars and a telescope for a few years, but never had anyone to teach me things face to face.

Graham's talk encouraged me to dig out some old photos and I found a picture of my Printz telescope; I think it was a Printz 660. I also found an out of focus image of the full Moon and a star trail; all shown below. I never was successful in getting the rings of Saturn to up on my lens projection technique, and the photographer developing technician at Lloyds the Chemist must have wondered what all these photographs were. Really fond memories.



Printz telescope on its alt-az mount, circa 1987/8.



Full Moon taken with eye piece projection technique; circa 1987/8.



One of my very first Star Trail photographs; Polaris in the centre; circa 1987/8.

James Dawson
helpdesk@nottinghamastro.org.uk

Two more deep-sky images from winter nights spent dodging clouds

taken with a Canon 450D camera at the f/6.3 focus of an 11-inch SCT



M42 230 x 30sec frames at ISO1600 processed in DSS and Gimp



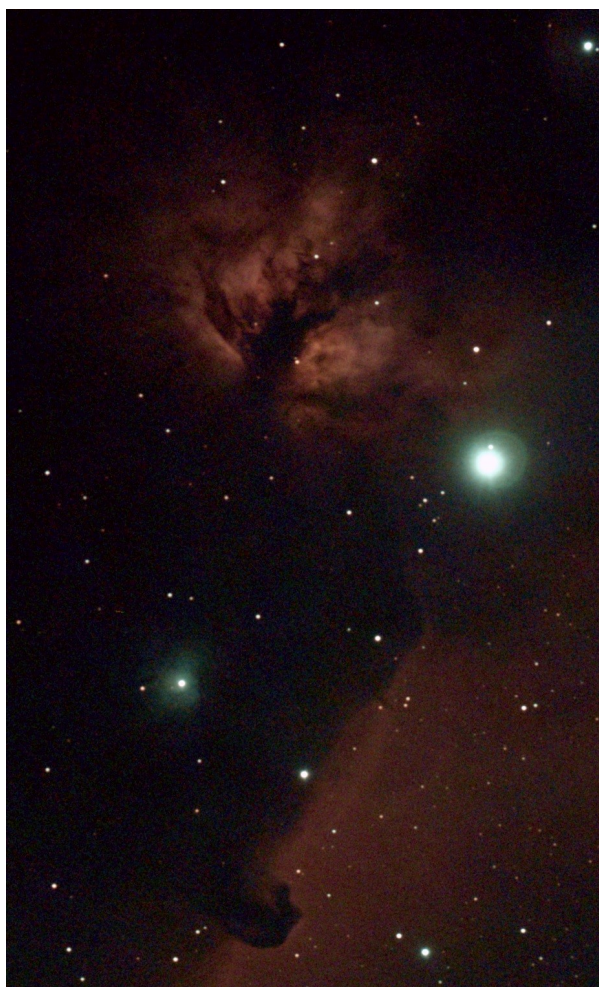
M33 216 x 30sec frames at ISO1600 processed in DSS and Gimp

Roy Gretton

Some Recent Pictures taken with my Seestar S50

Seestar S50 has a focal length of 250mm at f/5

The images are all about 15 minutes of automatically stacked 10-second exposures. Seestar automatically takes a set of darks at the start of a session and uses them with each stacked image.



The Flame Nebula and Horsehead Nebula



The Leo Triplet, M65, M66 and the
Hamburger Galaxy



Bode's Galaxy (M81) and
the Cigar Galaxy (M82)



M31, the Andromeda Galaxy

John Dignan

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 meetings and other events by visiting the NAS website: www.nottinghamastro.org.uk

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 secretary@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 treasurer@nottinghamastro.org.uk

ASTRONOMICAL MUSIC VIDEOS?

After the Plumtree evening on sci-fi films, I was musing on whether we could do something similar with music videos. I even started to put together my own selection.

First on the list would have to be the Galaxy Song by Eric Idle. Lots of numbers to be checked!

Then, I would go for a ballad by Mary Chapin Carpenter, prompted by the talk we had on the 1910 visit by Halley's comet.

Would it be self indulgent to have the Fireball XL5 theme song? Dare I admit to having bought the record when it came out?

Finally, how about a bit of karaoke? Everybody must know Tom Lehrer's Elements, but even with the words, can they keep up with him?

But sharing musical tastes is a fraught occupation and I can't see that working for an evening. I doubt people would even want to watch the videos in their own time:

Galaxy: <https://www.thedunfords.org/Astronomy/Galaxy.mp4>

Halley: <https://www.thedunfords.org/Astronomy/Halley.mp4>

XL5: <https://www.thedunfords.org/Astronomy/XL5.mp4>

Elements: <https://www.thedunfords.org/Astronomy/Elements.mp4>

But I wonder what others would choose?

David Dunford

An Image of the XMM Satellite, created by Neil Mudford



Advertisements

FOR SALE

Set of Bob's Knobs for collimating Celestron SCT **£10**



Celestron dovetail bar to fit C11 telescope. New, unused **£15**



Celestron 9 x 50mm finderscope and mounting bracket. New, unused **£45**



20 Assorted Lenses for Eyepiece-making, etc

7 achromatic doublets, 13 biconvex or plano-convex

Diameters 6mm to 25mm

30p each or **£5** the lot



Achromatic object glass
50mm diameter
focal length approx 40 cm

£5



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

FOR SALE

Celestron focal Corrector/Reducer f/6.3 for Schmidt-Cassegrain Telescopes (model 94175)
£106



Celestron T-Adapter for Schmidt-Cassegrain Telescopes (model 93633-A) **£16**



Both nearly new & boxed (including instructions for corrector/reducer)

Contact **Mark Fairfax** at mark@nottinghamastro.org.uk

Nottingham Astronomical Society

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

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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 £3 per meeting for adults.

Annual subscriptions 2024

Individual	£30
Family (maximum of two adults, and children/students living at the same address)	£45
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 the Secretary secretary@nottinghamastro.org.uk or speak to any NAS committee member at one of the regular monthly meetings.

The Nottingham Astronomical Society

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