
Journal

of the

Nottingham Astronomical Society

May 2023



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Thursday, May 4th

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

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

This evening we welcome

Jim Miller

formerly of Loughborough University

who will be speaking on

**Cosmic Rays:
history and mystery**

Chairman's Message, May 2023

Dear Members,

I hope you are all doing well as the weather warms up, yet you have to stay up later and later to see stars! We have a talk coming up on cosmic rays next which should be interesting.

I missed out on the Plumtree meeting as I was out at my first professional telescope on La Palma, taking science data with a couple of students. It was a fantastic experience, which I shall probably bore you with at a future Plumtree meeting as I took an awful lot of photos!

The observatory site is starting to dry out, though there are still deep puddles here and there, but it looks like we might be able to open it up in the not too distant future. We're also exploring ideas for a better roadway with Severn Trent. So hopefully that will bear fruit and we can get to the telescope more easily. Meanwhile James has been coordinating work on the electrics and we have more power available, crucially enough to boil a kettle!

Anyway, hope to see you at the next meeting.

Best wishes and clear skies!

Julian

Sky Notes

May 2023

Compiled by Roy Gretton



All times given below are in British Summer Time

PHASES OF THE MOON

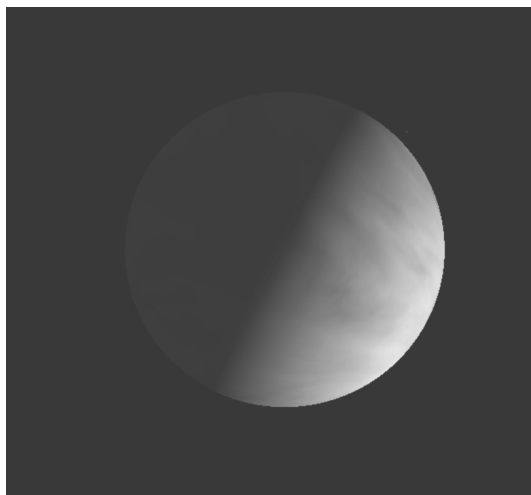
<i>Phase</i>	<i>Date</i>
Full Moon	May 5 th
Last Quarter	May 12 th
New Moon	May 19 th
First Quarter	May 27 th

This month the Moon is closest to Earth on the 11th and furthest on the 26th.

THE PLANETS

Mercury passes through inferior conjunction on May 1st, thereafter emerging into the morning sky and reaching greatest western elongation on the 29th. This won't be the best morning apparition of the planet, as it will be rising less than an hour before the Sun, and will be very difficult to spot.

Venus begins May in Taurus, but by the end of the month will have traversed almost the whole constellation of Gemini before reaching Cancer on the 2nd of June. Still brightening, Venus continues to be the outstanding object in the evening sky, apart from the Moon.



Venus on May 31st, diameter 22 arcseconds

On May 17th **Mars** (magnitude 1.4) will cross the border from Gemini into Cancer, but shortly before it does so, on the 15th, it will form a straight line with Pollux (magnitude 1) and Castor (magnitude 1.5). By this time, Mars' angular diameter will be falling below 5 arcseconds.

Jupiter is a morning object but still too close to the Sun for useful observation.

Saturn is now less than 11 degrees south of the celestial equator, and higher in our sky than it has been for some years. It has now broken free from the pre-dawn glow and will be rising at about 3 am.

Uranus is unobservable this month.

Neptune is a morning object, but will be very difficult to locate in the bright pre-dawn sky.

METEORS

The Eta-Aquariids reach maximum activity on May 6th, when 40 events per hour may be expected under ideal conditions. However, they are difficult to observe from the latitude of the UK.

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 Twitter

The Society has a Twitter account at <https://twitter.com/NottinghamAstro>

NAS Journal e-mailing list

To register for your monthly e-mailed link to the NAS Journal, and a copy of our SkyNotes, 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

Artificial Intelligence

AI has been in the news recently, so I thought I would try out ChatGPT as an alternative to Google. I've used it to find information related to both astronomy and local history. In both cases, it produced well-written prose and useful information. When I asked for sources for the information, it listed them.

Unfortunately, links to web sites for those sources proved to be broken; and book references turned out to be completely irrelevant. Using Google to do more in-depth research, back to original documents, showed facts generated by ChatGPT to be entirely fallacious.

The day of AI may be coming but, from my experience, it has yet to arrive. Use with caution!

David Dunford

DIARY DATES 2023

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
May 4 th	Cosmic Rays: history and mystery	Jim Miller formerly of Loughborough University
*June 8 th	Confessions of an X-ray pyromaniac	Dr Phil Evans University of Leicester
July 6 th	Space Debris and Astronomy	Prof Don Pollacco University of Warwick

Note unusual date: *second Thursday of the month

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 **May 18th**

Social and Practical Astronomy, Plumtree, April 2023

The **April** Plumtree meeting was organised by Richard who requested members of the Society to show an image and talk about it for a few minutes. The images could be an image they had captured themselves or an image taken by others.

Ten members volunteered and the ten images are shown below. The images and the speakers are shown separately on the subsequent pages. We are grateful to the speakers and thank them for their time. It is only with members' input can we keep these meetings going. A video of all the images presented at the meeting can be accessed via the link below or on the NAS website <https://nottinghamastro.org.uk/>

Despite Julian being away with academic commitments (more of that another time), Chris made a lovely cake which didn't last long.

The **May** meeting will be organised and run by Mark Fairfax and will be another meeting requiring members to get involved, and will concentrate on the different types of telescope.

You will remember the British Astronomical Association summer meeting was held in June 2022, and a two-page report Richard wrote for the BAA Journal has just been published and the BAA have kindly allowed us to reproduce it here.

Richard Severn
membership@nottinghamastro.org.uk

James Dawson
observatory@nottinghamastro.org.uk





Mark Fairfax, above, talking about Messier 27, the Dumbbell Nebula, or Apple Core Nebula. **Herbel Pabla**, below, talking about M81 Bode's galaxy and M82 Cigar galaxy.





Sam Boote, above, talked about his images taken with his Unistellar equinox telescope. His images included M51 Whirlpool Galaxy, M1 Crab Nebula, M13 Hercules Globular Cluster, M57 Ring Nebula and M42 Orion Nebula.

Dane Atkin, below, talked about his image of M51 Whirlpool Galaxy





Aniket Mahapure talked about this Hubble image above of Spiral galaxy NGC 2841, a mere 46 million light-years away.

Graham Winstanley also talked about his image of the Whirlpool galaxy, pictured below with his equipment used to take his image.





David Dunford, above, showed an image of the Coal Sack Nebula (a dark nebula) which can be seen from the southern hemisphere, and whilst he didn't take the image he talked about how the eyes are a much better instrument than a camera at seeing this object.

Andrew Green, below, talked about Pale Blue Dot is a photograph of Earth taken Feb. 14, 1990, by NASA's Voyager 1 at a distance of 3.7 billion miles (6 billion kilometers) from the Sun. The image inspired the title of scientist Carl Sagan's book, "Pale Blue Dot: A Vision of the Human Future in Space," in which he wrote: "Look again at that dot. That's here. That's home. That's us."





Richard Severn captured this image of a partial solar eclipse in March 2022.

James Dawson, below, showed this image of noctilucent clouds, and for the keen-eyed, Comet Neowise can just be seen to the right of the NLCs.



Making the most of a rare clear night sky, by Mark Fairfax

A pretty clear night sky for a change and the constellations Canes Venatici & Coma Berenices high up in the night sky away from the worst of the light pollution. Some spectacular deep-sky objects observed from my back garden with my Unistellar eVscope 1 on 19th/20th April:



NGC 4565 the Needle Galaxy (12 mins Enhanced Vision)



Messier 3 globular cluster (6 mins Enhanced Vision)



M51 the Whirlpool Galaxy (20 mins Enhanced Vision)

New Stars Created by a Supermassive Black Hole

The Hubble Space Telescope has revealed what is being described as “an extremely narrow linear feature” extending over 62 kiloparsecs. Further inspection showed that it is a mixture of star formation and shock waves.

The favoured explanation involves supermassive black holes (SMBHs) i.e. black holes with a mass equivalent to millions of solar masses. In this case, three of them totalling around 20 million solar masses. Eventually the chaotic interaction between them, resulted in the smallest being ejected in a “slingshot” at a velocity of 3.5 million miles per hour.

The impact of the SMBH as it moves through the gas surrounding a galaxy results in the creation of new stars.

You can read more at <https://iopscience.iop.org/article/10.3847/2041-8213/acba86>.

There are more things in Heaven and Earth, Horatio, than are dreamt of in your philosophy.

David Dunford

A View from Gran Canaria

An image of the Moon, Venus and Orion taken on April 23rd by John Dignan not far from well lit areas in Gran Canaria near his bungalow complex.

You can see Rigel in Orion almost on the horizon despite massive light pollution in general. You can also see other well known bright stars, Sirius, Aldebaran and the other Orion stars.

The image was taken with a Canon EOS 90D, 18mm, f/3.5, 6 sec, ISO 400.



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 2023

Full	£30
Joint rate for partners	
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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