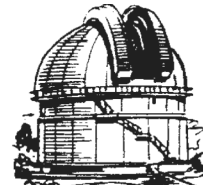

Journal

of the

Nottingham Astronomical Society

February 2022



In this issue

- A Message from the Chairman
- Sky Notes for February
- Diary Dates for 2022
- Social and Practical Astronomy: meeting report
- Ted Blecher: a tribute
- Comet hunting with an eVscope
- Imaging the Moon by eyepiece projection
- Image from a Solar Can Camera
- Advertisements
- E-Services
- Society Information

Thursday, February 3rd

8pm: **ONLINE**

Tonight we welcome

Dr Phil Evans



of the University of Leicester

who will be speaking on

Astronomy....without light?

The new field of multi-messenger astronomy

This will be a members-only event broadcast on
YouTube

Chairman's Message – February 2022

Dear all,

Well, not a great start to the year, being back online for the first couple of meetings. We'd planned a great cheese and wine with the AGM but it was not to be.

We are online too for the February meeting, but hopefully after that we'll be back in person. Meanwhile the observatory roadway we put in is still looking good, although if you go off the new track it is definitely muddy!

We have a researcher from Leicester for February's meeting talking about how things are changing as we don't always have to use light for astronomical observations these days.

Other than that, there is not a lot happening at this time of year, but do keep looking up! Orion is looking very fine on the nights that are clear

Julian,
NAS chair

Sky Notes

February 2022

Compiled by Roy Gretton



All times given below are in Universal Time

PHASES OF THE MOON

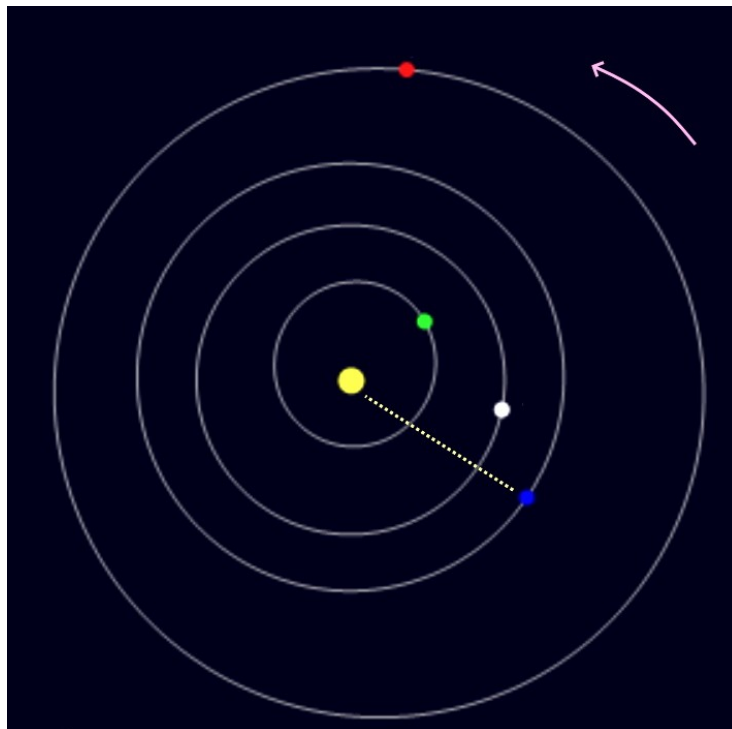
| <i>Phase</i> | <i>Date</i> |
|---------------|---------------------------|
| New Moon | February 1 st |
| First Quarter | February 8 th |
| Full Moon | February 16 th |
| Last Quarter | February 23 rd |

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

As February begins the evening sky is rich with bright constellations, as Orion strides across the meridian, and we have no fewer than seven first magnitude stars in a relatively small area of sky. By 2 am Leo is due south, with Virgo and Coma Berenices close by, an area of the heavens rich in galaxies – while the Plough is virtually overhead. And before the sun rises, Altair and Antares will have climbed above the horizon.

THE PLANETS

The inner Solar System viewed from above the north pole on February 15th. The pink arrow indicates the direction of rotation. The inner planets are all to the west of the Sun when viewed from Earth (blue dot) and are therefore morning objects. In order of their rising they are Venus (white dot), Mars (red dot) and Mercury (green dot).



Mercury will be a morning object through the month. It reaches greatest western elongation (26 degrees) on February 16th, when it will be shining at magnitude zero. It will not, however, be an easy target for UK observers, as it will be 19.5 degrees south of the celestial equator.

Venus is a brilliant object in the pre-dawn sky, shining at magnitude -4.6 and exhibiting a thickening crescent phase when viewed telescopically.



Looking SE at 6:15 am on February 8th

Mars remains an unremarkable magnitude 1.4 object in the constellation of Sagittarius, still more than 22 degrees south of the celestial equator and presenting a disk less than 5 arcseconds across.

Early February will provide a final opportunity to observe **Jupiter** before it disappears into the sunset glow ahead of its conjunction with the Sun in March.

Saturn is unobservable this month as it passes through conjunction with the Sun on February 4th.

Uranus, in the constellation of Aries, is visible in the evening sky throughout February, setting at midnight as the month ends.

Neptune is now very difficult to observe, setting before twilight ends.

METEORS

There are no notable meteor showers in February.

DIARY DATES 2022

Monthly Meetings of the Nottingham Astronomical Society

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

There will, unfortunately, be a brief period when we shall not be able to meet at the school, and meetings will have to be held online again. This, as far as is known at present, will apply to the January and February 2022 meetings only

Held on the **FIRST Thursday** of each month except **August**
Doors open at 7:30pm for 8pm 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 |
|---|---|--|
| February 3 rd ONLINE | Astronomy.... without light? The new field of multi-messenger astronomy | Dr Phil Evans University of Leicester |
| March 3 rd | Exoplanets | Dr Don Pollacco University of Warwick |
| April 7 th | Our Island Universe: the Milky Way, its place in time and space | Prof Ian Morrison Emeritus Gresham Professor of Astronomy |
| May 5 th | Supernovae | Dr Matt Nicholl University of Birmingham |
| June 9 th * | Imaging from light polluted sites | Peter Jenkins FRAS |
| July 7 th | Mars | Richard McKim Director of the BAA Mars Section |

* June 2nd is a national holiday

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

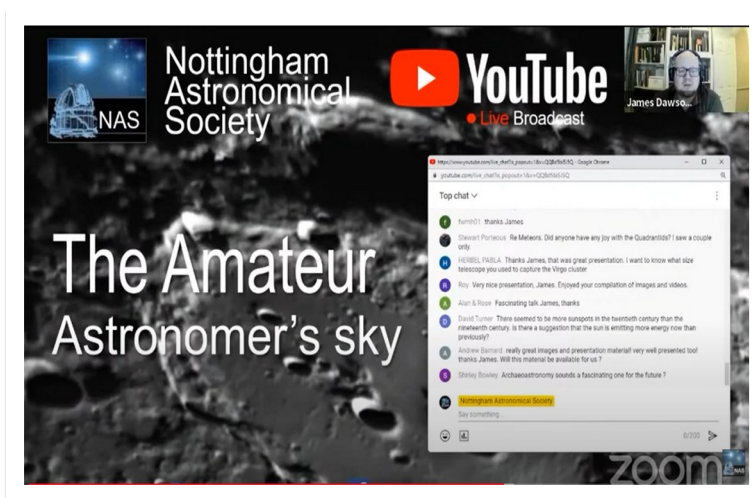
The next meeting will be on February 17th

Social and Practical Astronomy, Plumtree, January 2021

Our **January** Plumtree meeting was back online.

I gave a talk about what the amateur astronomer can achieve from their own back garden, covering just some of the areas amateur astronomers are involved with. Many amateurs just enjoy hunting for and observing objects in the sky, but there are lots who record their observations, take precise measurements, and this data is used to advance our understanding of the Universe we live in.

If you want to make observations that can be used to advance scientific understanding, then the British Astronomical Association (BAA) is probably the best place to approach.



The online talk can be watched on the Society YouTube channel along with the other talks we've held online: <https://www.youtube.com/watch?v=QQBd5bi5J5Q&t=30s>

The **February** talk is going to look at some principles in maths and physics and how these are directly applicable, and potentially observable, in amateur astronomy. We are hoping this will be face to face, but will let you know nearer the time.

James Dawson

helpdesk@nottinghamastro.org.uk

Ted Blecher, 1932 - 2021



Ted was born in Johannesburg and completed his medical degree at Witwatersrand University. He and his wife, Avrille, arrived in the UK in 1960, after Ted decided that South Africa would not be a safe place to stay.

Avrille describes Ted's interest in astronomy as follows:

Ted was one of the astronomers who did not like to stay out in the cold to view the heavens. He preferred to look online at the pictures from NASA and took a great interest in the space missions. We visited the astronomy department at the Open University and he was completely fascinated to see a scale model of the Rosetta spacecraft launched in 2004, with its lander module Philae which landed on a comet in 2014.

He was a sceptic regarding the Big Bang theory and had many lively discussions on that topic. He also presented a talk to the Society on that subject. I've had a good look at his file on the NAS. He made notes on the lectures that he attended but unfortunately they are written in shorthand, which I can't read! He taught himself to write shorthand when he was a medical student and retained that useful ability all his life! I think he joined the Society in 2007 and certainly enjoyed all his years of membership. Before that he attended a course of lectures given at the Mansfield and Sutton Observatory, and had many opportunities to view the sky through the telescope there. He also attended many courses in Geology.

I wish you and the Society much good fortune in the coming years.

Yours very sincerely,
Avrille

Comet-hunting with my eVscope

Despite a bright 71% illuminated Moon and very high humidity I went comet-hunting with my eVscope at Fernwood, Newark on 12th January. Comet C/2019 L3 Atlas a no go as it just wouldn't detect / enhance vision. Comet 19P/Borrelly a bit too low and early evening object which is a none starter for me, (late viewing better when neighbours in bed and lights off).

Comet 67P/Churyumov-Gerasimenko, however, was a resounding success!

(Visual magnitude +11.3 comet in Cancer; 30 mins enhanced vision on the eVscope)

This comet was the destination of the European Space Agency's Rosetta mission which rendezvoused with Churyumov-Gerasimenko on 6th August 2014. I remember as Rosetta approached and the emerging, irregular shape with two distinct lobes. The two-lobe shape is the result of a gentle, low-velocity collision of two objects.



Mark Fairfax

Imaging the Moon by Eyepiece Projection

Eyepiece Projection - photographing with a telescope while taking advantage of the eyepiece magnification, you fix the camera on the eyepiece without a lens. Thursday 13th January, just before 10pm at Fernwood, Newark. Celestron Astro Fi 5" SCT, Kellner 25mm eyepiece (1.25"), Celestron Deluxe tele-extender, Celestron T-ring adapter for Canon EOS camera, Canon EOS 750D DSLR camera.

Very fiddly to set up, especially with how cold it was too. I could only use my basic Kellner eyepiece as the tele-extender is only compatible with eyepieces that have a barrel diameter of no more than 1.5" (38mm). This unfortunately meant my Celestron X-Cel LX eyepieces were a no go.

1. Tv (Shutter Speed): 1/500 and ISO Speed: 6400

Tycho crater 85km across / **Bullialdus** crater 61km across in **Mare Nubium** "Sea of Clouds" 714km across



2. Tv (Shutter Speed): 1/250 and ISO Speed: 6400

Montes Jura mountain range 421km across / **Plato** crater 101km across



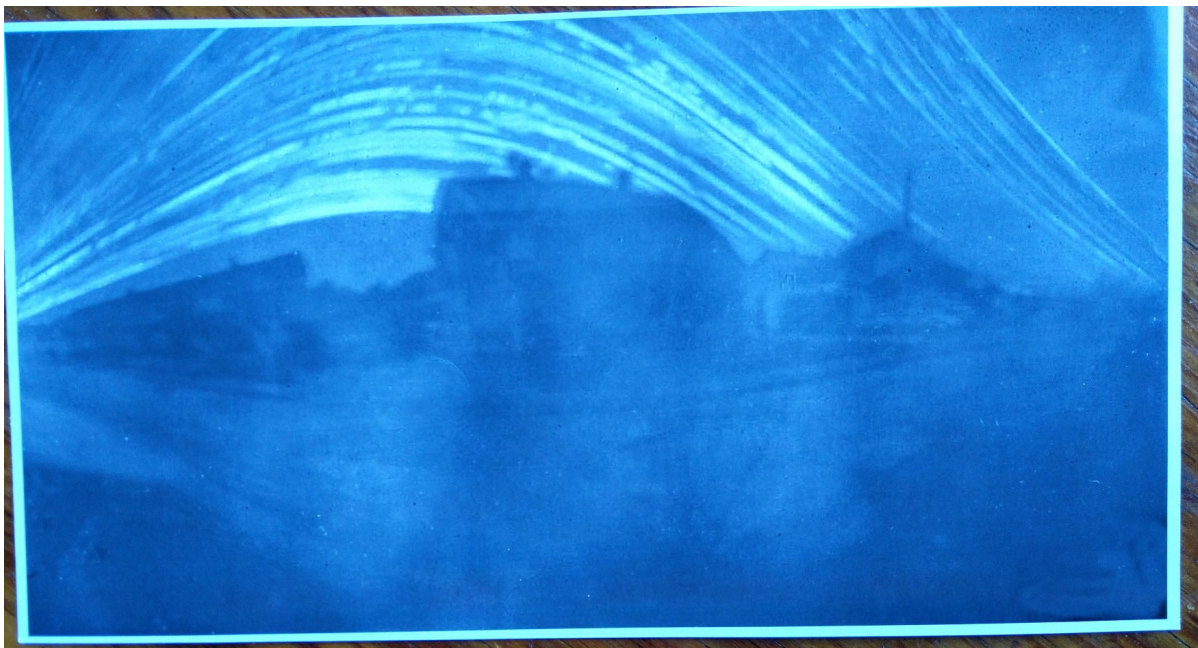
3. Tv (Shutter Speed): 1/125 and ISO Speed: 4000

Copernicus crater 96km across / **Kepler** crater 29km across



An Image from a Solar Can Camera

I opened the solar can cameras I made last June and thought you might like to see the result. I'm busy making more cans to be opened in June and hope I can avoid the mistakes I made with the last lot. The main error was in not putting the pinhole high enough in the can to get the summer Sun, as the picture is inverted as well as reversed side to side. On this picture the winter Sun is great but nothing is recorded when it's higher,



David Buxton

ADVERTISEMENTS

Telescope for Sale

I'm trying to find a home for a Sky-Watcher Mak 90EQ/TA telescope that a friend is passing along due to it not being used. It's mounted on a short tabletop mount, and all the parts are present.



Open to sensible offers. Contact me for more information.

Thank you,

Michelle Barnett
michellesbarnett@hotmail.com

FOR SALE

Now that I have sold my telescope and gone over to electronically assisted observing, I still have some bits and pieces for sale. [The following are currently available:](#)

Tele Vue solar finder
set of four coloured 1.25-inch filters
1.25-inch oxygen-III filter
1.25-inch 13% Moon filter
2-inch 13% Moon filter
2-inch broad-band light pollution filter
2-inch narrow-band light pollution filter
Geoptik variable artificial star for collimation

By the time you read this, some items may have been sold via my adverts on [astrobuysell.com](#).

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

FREE Astronomy t-shirt (size - mens, large)

Brand new as a duplicate Christmas present which Amazon didn't want back.

FREE but maybe chuck a few quid donation to the Society

Contact **Mark Fairfax** at fairf77@icloud.com or at Society meetings.

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

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:

Richard Severn

email: vicechairman@nottinghamastro.org.uk

SECRETARY:

Chris Sneddon

email: secretary@nottinghamastro.org.uk

TREASURER:

Mike Provost

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

ORDINARY COMMITTEE MEMBER:

Andrew Green

Meetings

Our formal meetings, often with an illustrated talk by a guest speaker, 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 7:30pm

Meetings start 8:00pm

Meetings end 9:30 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 2022

| | |
|---|-----|
| 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

The Nottingham Astronomical Society, and/or the Editor accept no responsibility for any errors that may occur within this publication. Any views expressed in the **NAS Journal** are those of the individual authors and not necessarily endorsed by the Nottingham Astronomical Society, its Committee or Members.