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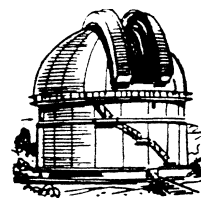
# Journal

of the

## Nottingham Astronomical Society

April 2018

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**Thursday, April 5<sup>th</sup>**

**Gotham Memorial Hall  
Gotham, NG11 0HE**

**8 pm (doors open at 7 pm)**

**Tonight we give a warm welcome to**

**Prof Ian Morison**



**of the University of Manchester**

**who will be speaking on**

**“Jodrell Bank 60 years on”**

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### ***A Reflection on the Wintry Weather of Spring***

We were sorry to miss out on a visit from our distinguished guest speaker, Bob Mizon, *Co-ordinator of the BAA Commission for Dark Skies*, for of our main meeting at Gotham on March 1<sup>st</sup>. The country was receiving a battering at the hands of the ‘Beast from the East’ on that occasion, and a trip from Bob’s home in Dorset was out of the question.

Members will be glad to know that Bob has been re-booked for next year’s April meeting, when he will be speaking on the same subject:

**DARK FUTURE — What future for the UK’s darkest skies?**

Those who did battle through the snow and ice to attend the meeting on March 1<sup>st</sup> were treated to a talk on supernovae by our resident astrophysicist, Julian Onions.

***Thank you, Julian, for stepping in at short notice!***

# Sky Notes

## April 2018



Compiled by Roy Gretton

*All times given below are in British Summer Time (BST)*

### PHASES OF THE MOON

<i>Phase</i>	<i>Date and time</i>
Last Quarter	8:19 am on April 8 <sup>th</sup>
New Moon	2:58 am on the 16 <sup>th</sup>
First Quarter	10:47 pm on the 22 <sup>nd</sup>
Full Moon	1:59 am on the 30 <sup>th</sup>

This month the Moon is closest to the Earth on the 20<sup>th</sup>, and furthest on the 8<sup>th</sup>.

### THE PLANETS

**Mercury** passes through inferior conjunction on April 1<sup>st</sup>, and is thereafter a morning object, reaching greatest western elongation (27 degrees) on the 29<sup>th</sup>, but will be extremely difficult to observe from the latitude of the British Isles due to its low altitude in our sky.

**Venus** continues to increase in visibility in the evening sky as April progresses. Shining at magnitude  $-3.9$  it will be unmissable if you have a clear sky after sunset. Between April 22<sup>nd</sup> and 26<sup>th</sup> Venus will be passing close by the Pleiades star cluster, making an attractive pairing through binoculars as soon as the sky is dark.



*Looking west at  
9:30 pm on  
April 28<sup>th</sup>,  
four days after  
Venus' closest  
approach to the  
Pleiades*

In early April **Mars** will be rising soon after 3 am and will be close to Saturn in the morning sky (closest approach being on the morning of the 4<sup>th</sup>, when Mars will be just over a degree south of the gas giant). Both planets continue to be badly-placed in our sky, being more than 22 degrees south of the celestial equator in the constellation of Sagittarius, but will nonetheless make an impressive pairing when viewed with the naked eye, or especially through binoculars.

**Jupiter** rises before midnight as April begins, culminating at 3:50 am, and by the end of the month will be above the horizon as soon as the sky is dark. By this time its angular diameter will have increased to nearly 45 arcseconds and its magnitude to  $-2.4$ . Even though Jupiter will still be more than 16 degrees south of the equator, it will be a good subject for telescopic observation.

**Saturn** is now brighter than magnitude 0.5, and rises at about 2 am in mid-month. With the plane of the ring system tilted at 25 degrees relative to the ecliptic plane, Saturn will be an attractive sight through a telescope, provided the 'seeing' is good enough down to 22 degrees south of the celestial equator – which unfortunately tends to be a tall order from our part of the world!



*Looking south  
at 5:30 am  
on April 15<sup>th</sup>*  
(Mars, having  
passed  
close by  
Saturn eleven  
days earlier,  
continues its  
eastward  
journey)

**Uranus** and **Neptune** must now be regarded as unobservable as they are very close to the Sun.

## METEORS

The **Virginids** reach their maximum activity (up to five events per hour) on the night of April 11<sup>th</sup>-12<sup>th</sup>, when the Moon will be a waning crescent in the morning sky, so conditions will be fairly favourable this year.

The **Lyrids** reach their maximum activity on April 22<sup>nd</sup>, coinciding with a First Quarter Moon, so conditions will be favourable this year after midnight. About 10 events per hour are expected under ideal circumstances.

# DIARY DATES 2018

## Monthly Meetings of the Nottingham Astronomical Society

### 1) Meetings at Gotham Memorial Hall

Nottingham Road, Gotham, NG11 0HE

Held on the **FIRST Thursday** of each month except **August**

Doors open at 7pm for 8pm start.

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

<u>Date</u>	<u>Topic</u>	<u>Speaker</u>
April 5 <sup>th</sup>	Jodrell Bank 60 years on	Prof Ian Morison <i>University of Manchester</i>
May 3 <sup>rd</sup>	Lucky Planet – why Earth is exceptional <i>and what it means for life</i>	Prof David Waltham <i>Royal Holloway, University of London</i>
June 7 <sup>th</sup>	Diamonds in the Sky <i>White Dwarfs in Modern Astrophysics</i>	Professor Martin Barstow <i>University of Leicester</i>
July 5 <sup>th</sup>	Cassini's Final Science	Dr Phil Sutton <i>University of Lincoln</i>
August 4 <sup>th</sup> <i>(Saturday)</i>	Annual Society BBQ at the Observatory	
September 6 <sup>th</sup>	The Adventures of Curiosity on Mars	Prof Sanjeev Gupta <i>Imperial College, London</i>
October 4 <sup>th</sup>	Juno – the Answers	Prof Emma Bunce <i>University of Leicester</i>
November 1 <sup>st</sup>	Annual General Meeting	
December 6 <sup>th</sup>	Transient Events in Astronomy or <i>things that go bump in the night</i>	Prof Dame Jocelyn Bell Burnell DBE, FRS, FRSE, FRAS

## 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.*

**The next meeting will be on April 19<sup>th</sup> (see further details below)**

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Check our website: [www.nottinghamastro.org.uk](http://www.nottinghamastro.org.uk)  
for the latest information about the Society's meetings  
and for further information about the talks and speakers

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### Events in the coming months open to everyone

(follow hyperlinks for more information and how to book)

29th March	<a href="#">A live surface of the Sun</a> , Open Dome Event, Clifton
21st April	Society for the History of Astronomy <a href="#">Spring Meeting</a> , Cambridge
25th April	<a href="#">Heavenly Place on Earth</a> , Open Dome Event, Clifton
24th May	<a href="#">Flat Earth Rising</a> , Open Dome Event, Clifton
2nd June	<a href="#">Webb Deep Sky Society Annual Meeting</a> , Cambridge
7-8 July	<a href="#">BAA Summer Meeting</a> , Coventry
12-13 October	<a href="#">International Astronomy Show</a> , Stoneleigh, Warwickshire
27 October	Society for the History of Astronomy, <a href="#">Autumn Conference</a> , Birmingham

### **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](http://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**


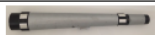
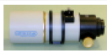







To register for your monthly e-mailed copy of the NAS Journal, just e-mail [secretary@nottinghamastro.org.uk](mailto:secretary@nottinghamastro.org.uk)

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](mailto:treasurer@nottinghamastro.org.uk)*

## Social and Practical Astronomy, Plumtree

The **March** meeting at Plumtree saw Leigh coordinate a session on the astronomical telescope. Several members brought along a range of telescopes and Leigh gave us a tour around each of the commoner types of telescope and the advantages and drawbacks of each of them was described. It was great to see lots of questions being asked and so much discussion amongst the group. A really good evening. Thanks to Leigh for arranging the event and to everyone who brought telescopes along and who contributed.

Telescope	Focal length	Aperture	Focal Ratio	Field of view with 20mm Meade 4000 Super Plossl eye piece	Magnification with 20mm eye piece; magnification = focal length of telescope / focal length of eye piece	
Helios Naturesport; 10x50 porro prism binoculars	?	50mm	?	n/a	n/a	
Unbranded; achromatic refractor	300mm	30mm	f/10	n/a	n/a	
Opticstar AR80S; achromatic refractor	400mm	80mm	f/5	156 arcminutes	20x	
Skywatcher Evostar ED80 Pro; apochromatic refractor	600mm	80mm	f/7.5	104 arcminutes	30x	
Skywatcher Explorer 150P; reflector	750mm	150mm	f/5	83 arcminutes	37.5x	
Vixen A80Mf; achromatic refractor	910mm	80mm	f/11.4	69 arcminutes	45.5x	
Skywatcher Skymax-90; Maksutov-Cassegrain	1250mm	90mm	f/13.88	50 arcminutes	62.5x	
Skywatcher Skymax-180; Maksutov-Cassegrain	2700mm	180mm	f/15	23 arcminutes	135x	
Celestron C11; Schmidt-Cassegrain	2800mm	280mm	f/10	22 arcminutes	140x	
William Herschel 40-foot; reflector, completed in 1789	12000mm 144"	1200mm 47"	f/10	5 arcminutes	600x	

At the **April** meeting at Plumtree, David Lukehurst is going to give us a talk on eyepieces. The **May** meeting is yet to be confirmed, and in **June**, Alan Heath will talk to us about observing the planets.

**James Dawson**

NAS Helpdesk

[helpdesk@nottinghamastro.org.uk](mailto:helpdesk@nottinghamastro.org.uk)

# Nottingham Astronomical Society

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

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email: [observatory@nottinghamastro.org.uk](mailto:observatory@nottinghamastro.org.uk)

**Observatory line: 07726 940700 (line open during observing sessions)**

## **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:

**Gotham Memorial Hall  
Gotham  
Nottingham NG11 0HE**

Doors open                    7.00pm  
**Meetings start                8.00pm**  
Meetings end                 10.00pm

These meetings are open to the public, and visitors are welcome to attend.

## **Annual subscriptions 2018**

Full	£30
Joint rate for partners living at the same address	£45
Under-18s and full-time students	£5

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

Please make cheques payable to:  
*Nottingham Astronomical Society.*

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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](mailto:secretary@nottinghamastro.org.uk) or speak to any NAS committee member at one of the regular monthly meetings. A membership application form is inside this issue of the Journal.

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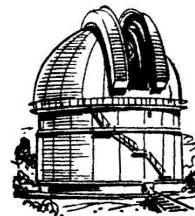
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# NOTTINGHAM ASTRONOMICAL SOCIETY

Founded in 1946 for all interested in astronomy  
Affiliated to the British Astronomical Association  
Member of the Federation of Astronomical Societies

Registered Charity No. 1174745  
Member of the Society for Popular Astronomy  
Supporter of the Commission for Dark Skies



## Membership application and Gift Aid declaration

**Title:**

**Full name:**

**Full home address:**

**Postcode:**

**Telephone:**

**e-mail address:**

<b>Subscription rate:</b>	Full	(year)	(half year)
	Partnership	(year)	(half year)
	Under-18 and full-time students		

Partnership = two members living together as a couple at the same address

I wish my subscriptions to be eligible for Gift Aid **Yes / No**

## Gift Aid declaration

**(HMRC reference XR32048)**

I want Nottingham Astronomical Society to treat all subscriptions and donations that I make from the date of this declaration as Gift Aid donations, until I notify you otherwise.

I pay an amount of UK Income Tax and/or Capital Gains Tax at least equal to the tax that Nottingham Astronomical Society reclaims on my donations in the appropriate tax year.

**Signature:**

**Date:**