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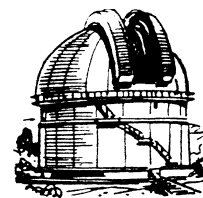
# Journal

of the

## Nottingham Astronomical Society

July-August 2017

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**Thursday, 6<sup>th</sup> July**

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

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

**This evening we welcome**

**Dr Ed Daw**



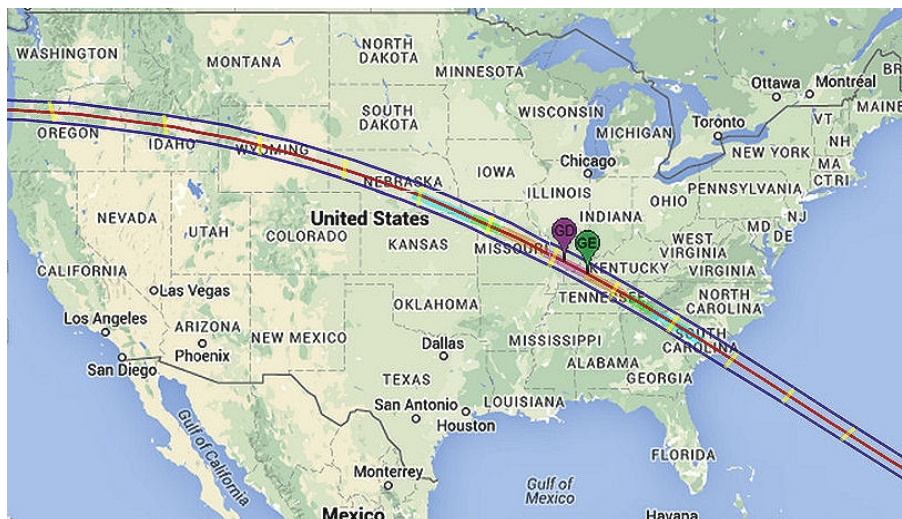
**of the University of Sheffield  
who will be speaking on**

**Gravitational Waves**

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### **The Total Solar Eclipse of 21<sup>st</sup> August 2017**

The track of totality will cross the United States from the Pacific Ocean to the Atlantic. A brief glimpse of the partial phase may be visible from Britain as the sun sets. The eclipse belongs to the series Saros 145, the previous member of which took place on 11<sup>th</sup> August 1999. *Some of us who were clouded out 18 years ago are hoping for better luck this time!*



GD = greatest duration

GE = greatest eclipse

# Sky Notes

## July-August 2017

Compiled by Roy Gretton

*All times given below are in British Summer Time*



**Aphelion.** At ten past nine on the evening of July 3<sup>rd</sup>, the Earth will further from the Sun than at any other time during 2017, with 152,092,504 km separating the two bodies (about 5 million kilometres further apart than they were on January 4<sup>th</sup>).

### PHASES OF THE MOON

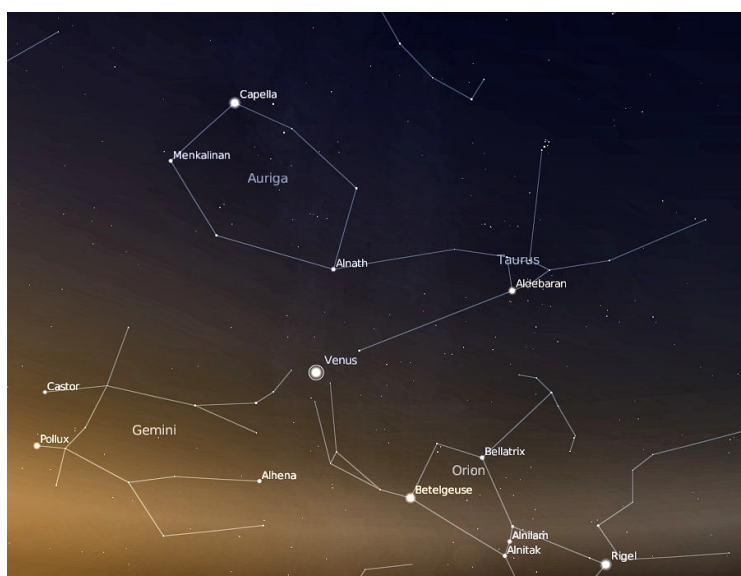
	July	August
First Quarter	1:51 am on the 1 <sup>st</sup> and 4:23 pm on the 30 <sup>th</sup>	9:13 am on the 29 <sup>th</sup>
Full Moon	5:07 am on the 9 <sup>th</sup>	7:11 pm on the 7 <sup>th</sup>
Last Quarter	8:16 pm on the 16 <sup>th</sup>	2:15 am on the 15 <sup>th</sup>
New Moon	10:46 am on the 23 <sup>rd</sup>	7:30 pm on the 21 <sup>st</sup>

In July the Moon is closest to the Earth on the 21<sup>st</sup>, and furthest on the 6<sup>th</sup>. In August the Moon is closest to the Earth on the 18<sup>th</sup>, and furthest on the 2<sup>nd</sup>.

### THE PLANETS

**Mercury** begins July as an evening object, reaching greatest eastern elongation (27 degrees) on the 30<sup>th</sup>, but even then it will be very poorly placed for observation from the UK. Thereafter it moves swiftly in toward the Sun, arriving at inferior conjunction on August 26<sup>th</sup>. *During the total solar eclipse (visible across the USA on August 21<sup>st</sup>), Mercury will be about 10 degrees east of the Sun.*

**Venus**, in the constellation of Taurus, is a brilliant (magnitude -4) object in the morning sky throughout July and August, having passed through greatest western elongation (46 degrees from the Sun) in early June. The planet should become more noticeable as time goes on, as its declination increases through most of July and August. *During the total solar eclipse on August 21<sup>st</sup>, Venus will be about 34 degrees west of the Sun.*



Looking east  
at 4:20 am  
on July 31<sup>st</sup>

**Mars**, after a lengthy apparition, finally reaches conjunction with the Sun on July 27<sup>th</sup>, and is therefore unobservable this summer.

**Jupiter**, in the constellation of Virgo, begins July as a bright (magnitude –2) “star” in the southwest after sunset, but its brightness and angular size will be decreasing with time as it heads toward conjunction with the Sun in October.

**Saturn** is an evening object low down in the southern sky, about 22 degrees south of the celestial equator, and so not very prominent to UK observers in spite of its brightness (magnitude 0.1). If you do get the chance to view Saturn through a telescope, the ring system is displayed to advantage, with the planet’s north pole tilted toward us at about 26 degrees.

**Uranus** (in the constellation of Pisces) and **Neptune** (in Aquarius) are both morning objects.

## METEORS

There are three meteor showers visible in August: the **Alpha Capricornids**, which peak on the night of the 2<sup>nd</sup>-3<sup>rd</sup>, with a waxing gibbous Moon, so conditions will be rather unfavourable; the **Iota Aquarids**, which peak on the 6<sup>th</sup> (close to the Full Moon, so very unfavourable); and of course the **Perseids**, which this year will peak under less than ideal conditions, with a 20-day-old Moon that will interfere with observations after midnight. Maximum activity is expected on the *evening* of August 12<sup>th</sup>, so this will be the prime time for observation this year.

### 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)*

## DIARY DATES 2017

### Monthly Meetings of the Nottingham Astronomical Society

#### 1) Meetings at Gotham Memorial Hall (*new venue*)

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 Opening 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>
July 6 <sup>th</sup>	Gravitational Waves	Dr Ed Daw University of Sheffield
August 5 <sup>th</sup> (SATURDAY)	BBQ at the Observatory (members and guests only)	
September 7 <sup>th</sup>	Galaxy Evolution revealed by the Hubble Space Telescope	Dr Clive Tadhunter University of Sheffield
October 5 <sup>th</sup>	Space Stations from Salyut to the ISS	Dr Mike Leggett, FRAS
November 2 <sup>nd</sup>	Annual General Meeting	
December 7 <sup>th</sup>	Voyager 40 Years On (Part 1)	Paul Money, FRAS

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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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#### 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.*

*Members and their guests are welcome.*

The next meeting will be held on July 20<sup>th</sup>, when Mr Brian Griffin will be giving an illustrated talk on the construction of the Society's observatory. Brian was one of the prime movers in the building of the observatory in the 1980s and 1990s.

## The Summer Barbecue, Saturday 5th August 2017

The NAS Summer BBQ (for NAS members and their personal guests) is being held on Saturday 5th August 2017 at the observatory in Cotgrave. The event will begin at 1pm and run until 5pm; fingers crossed for good weather.

A small team are working on the arrangements for the day, but we plan to have a selection of solar telescopes again, a raffle, and tours of the observatory.

We will provide the hot BBQ, paper plates, disposable cutlery, cups, bread rolls and sauces. **You need to bring along whatever you want cooking on the BBQ, your own drinks and chairs.**

We need some people willing to cook on the day. If you can do this please make yourself known to us.

Also we'll need help setting up on the morning of the BBQ, so again please let us know if you are able to help on the day.

There will be a portable toilet and hand washing facilities provided on site for the day.

If you have a small prize you'd be happy to donate to the raffle please also bring this on the day.

The 70th Birthday BBQ last year (pictured below) was a great success and we hope the BBQ this year will be well attended, and just as enjoyable.



**If you are likely to come, please let me know so we can plan how many to cater for.**

James Dawson  
NAS Helpdesk  
[helpdesk@nottinghamastro.org.uk](mailto:helpdesk@nottinghamastro.org.uk)



## **Social and Practical Astronomy, Plumtree**

The **June** meeting at Plumtree saw the audience divided up into five groups, and they rotated around five stations, each dedicated to a different observing target. Gareth Davies led the station on galaxies, Leigh Blake on star clusters, Julian Onions on variable stars, James Dawson on Noctilucent Clouds and Richard Severn and Tobias Long jointly covered planetary nebula. The event was a great success, and feedback on the night and subsequently has been very complimentary. Thanks to all who helped out.

The survey I ran in the last edition of the Journal to get ideas for future topics for our Plumtree meetings was unfortunately only completed by a handful of people. It remains open should anyone wish to submit ideas. The winner of the draw was Marcus Stone who won a copy of a beginners guide to stargazing. Well done Marcus, and thanks to those who, like Marcus, completed the survey.

The **July** meeting (Thursday 20th July) is going to be a talk by Brian Griffin on the building of our observatory in Cotgrave. Brian has pulled together numerous photographs and other materials which depict the planning and implementation of the project to build the observatory in the 1980s and 1990s. It will be a fascinating insight into the construction of our observatory.



As always, the doors will open at 7:30pm and the session will start at 8pm.

**James Dawson**

NAS Helpdesk

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

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## **Advertisement**

### **FOR SALE**

Celestron 9¼-inch optical tube with Losmandy dovetail	£595
Ioptron Minitower Pro mount with tripod	£545
Ioptron Power Weight	£75
Ioptron Mini Pier	£65
Set of four 1¼-inch coloured filters (red, yellow, green, blue)	£20

**Sam Boote** [sam@boote.myzen.co.uk](mailto:sam@boote.myzen.co.uk) or at Society meetings

# 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  
Registered Charity No: 1066645

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e-mail: [vicepresident@nottinghamastro.org.uk](mailto:vicepresident@nottinghamastro.org.uk)

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## **DIRECTOR OF OBSERVING:**

**(vacant post; Acting Director: John Hurst)**

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

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

## **ORDINARY COMMITTEE MEMBERS:**

**Barrie Chacksfield**

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## **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 2017***

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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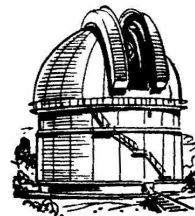
## **The Nottingham Astronomical Society**

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# NOTTINGHAM ASTRONOMICAL SOCIETY

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## Membership application and Gift Aid declaration

**Title:**

**Full name:**

**Full home address:**

**Postcode:**

**Telephone:**

**e-mail address:**

<b>Subscription rate:</b>	Full	£30.00	(year)	£15.00	(half year)
	Partnership	£45.00	(year)	£22.50	(half year)
	Under-18 and full-time students	£5			

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:**