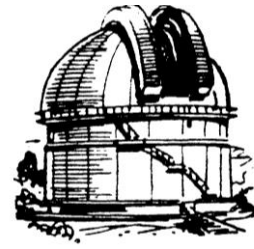


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# Journal

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## Nottingham Astronomical Society

May 2011

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- Sky Notes for May
- Diary Dates for 2011
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- NTU Open Dome event
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**Thursday, May 5<sup>th</sup>**

**British Geological Survey  
Nicker Hill, Keyworth  
8 pm (doors open at 7.30pm)**

Tonight we welcome  
**Paul Money, FRAS**  
who will be speaking on

**“Genesis – The Birth of a Star”**

### **Probable Delay to the JWST**

The launch of the James Webb Space Telescope (JWST), which was planned for 2014 or 2015, may be postponed for four years due to severe problems with the American budget. Last November an independent review panel said that the JWST needed an extra \$500 million over the next two years to have a chance of being launched by the end of 2015. However, in view of the massive US deficit, it now appears that the money simply isn't available.

Most of the hardware for the telescope is already in production, including the 21-foot (6.5-metre) primary mirror, composed of 18 segments made mainly of beryllium, all of which must be accurately polished at cryogenic temperatures (below 50K), a procedure which is hugely expensive.

The telescope, with a focal length of 131.4 metres, will operate 1.5 million kilometres from Earth, at the Lagrange 2 point. Its main areas of investigation will centre on the earliest luminous objects to be formed after the Big Bang, and the properties of extrasolar planetary systems.

# Sky Notes

## May 2011

Compiled by Roy Gretton



From about May 17<sup>th</sup>, at the latitude of Nottingham, Astronomical Twilight lasts the whole night through, which means that the sky never gets properly dark from then until late July. Astronomical Twilight is defined as that period after sunset, and before sunrise, when the Sun is less than 18 degrees below the horizon. Under such conditions, the sky isn't completely dark, even overhead. This isn't a problem if you wish to observe the Moon or a bright planet, but if your interest is in observing faint deep sky objects such as nebulae or galaxies, you still have a couple of weeks, and then you'll need to be patient until August.

### PHASES OF THE MOON

New Moon occurs on May 3<sup>rd</sup> at 7.50 am **BST**  
First Quarter occurs on the 10<sup>th</sup> at 9.33 pm  
Full Moon occurs on the 17<sup>th</sup> at 12.10 pm  
Last Quarter occurs on the 24<sup>th</sup> at 7.52 pm

This month the Moon is closest to Earth on the 15<sup>th</sup>, and furthest from Earth on the 27<sup>th</sup>.

### THE PLANETS

**Mercury** will be at greatest western elongation on May 7<sup>th</sup>, and therefore a morning object. It will, however, be so close to the horizon as to make observation from Britain almost impossible.

**Venus** is also a morning object, but difficult to observe due to its low elevation and proximity to the Sun.

**Mars** is very gradually moving away from the Sun in the morning sky, but remains very close to the eastern horizon, making observation extremely difficult.

**Jupiter**, yet another morning object, is still too close to the Sun to be seen in a dark sky.

**Saturn** is probably the only one of the seven planets worth observing this month. The rings are tilted toward the south as viewed from Earth, so that the whole of the northern hemisphere is exposed to us. Around midnight **BST**, Saturn is due south in the constellation of Virgo. It isn't especially bright, but easy to find, and a glorious sight through a telescope.

**Uranus** and **Neptune** are unobservable this month.

### VARIABLE STAR: Algol (Beta Persei)

There is just one minimum of this eclipsing binary visible from the UK this month. It occurs on May 10<sup>th</sup> at 1.35 am. The star dims from its normal brightness (magnitude 2.1) to magnitude 3.4 over a period of 4.8 hours.

## DIARY DATES 2011

### **Monthly Meetings of the Nottingham Astronomical Society**

Our programme for this year is shown below. Don't forget to check our website:

[www.nottinghamastro.org.uk](http://www.nottinghamastro.org.uk)

for the latest information about the Society's meetings and for further details about the talks and speakers.

Our meetings are held on the **FIRST THURSDAY** of the month, at the British Geological Survey, Keyworth, Notts. NG12 5GG  
Doors open at 7:30pm for 8pm start.

**Thursday, 5<sup>th</sup> May 2011**

Talk: **“ Genesis – The Birth of a Star ”**

**Paul Money, FRAS**

**Thursday, 2nd June 2011**

Talk: **" Herschel - Seeing the Stolen Starlight "**  
**(what the Herschel Space Telescope is showing us about the hidden side of the Universe)**

**Dr Loretta Dunne**  
School of Physics and Astronomy  
University of Nottingham

**Thursday, 7<sup>th</sup> July 2011**

Talk: **“ Gamma Ray Bursts – A Cosmic Detective Story ”**

**Dr Andrew J. Norton**  
Department of Physics and Astronomy  
The Open University

**August 2011 - Summer Break - No Meeting**

**Thursday, 1<sup>st</sup> September**

**Members' Evening**  
(visitors welcome) - Topics to be arranged

**Thursday 6<sup>th</sup> October**

Talk:           **“ Journey to the Aurora of Jupiter ”**  
**The 2018 NASA/ESA Double Mission to the Jupiter System**

**Dr Nigel Bannister**  
Department of Physics and Astronomy  
University of Leicester

**Thursday 3<sup>rd</sup> November 2011**

**2011 Annual General Meeting**

**Thursday 1<sup>st</sup> December 2011**

Dramatic Lecture :   **“ Fire from the Sky - the Tunguska Incident ”**

**Andrew Lound**

## **The Nottingham Astronomical Society: E - SERVICES**

### **‘Beehive’ Website**

Whether or not you are a NAS member, you can now 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 Journal e-mailing list**

To register for your monthly e-mailed copy of the NAS Journal, just e-mail

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

You don’t have to be a Society member to take advantage of this service.

# Nottingham Trent University Open Dome Event

## "Dust and Water - Scattering everywhere"

**Date:** 25 May 2011

**Time:** 4 pm - 6 pm

**Event:** Open Dome Event - Dust and Water - Scattering everywhere

**Location:** Optical observatory, Clifton campus

### **Details:**

Looking at the sky during daytime can be interesting as well. We can see atmospheric effects such as rainbows, halos or just the blue sky. Some of these amazing natural spectacles are caused by light scattering and astronomers use them to learn more about space and even planets around other stars.

Dr D Fairhurst (NTU SST) will present a talk on Light Scattering on Earth and Beyond in which he will show how the scattering of light by molecules or small particles can explain natural phenomena such as the blue sky, the red glow of sunsets and the white colour of clouds. The same processes take place throughout the universe and explain effects such as the reddening of stars and even help us find lakes on Titan.

The event will start at 4pm at the NTU observatory where visitors will get a tour of the NTU observatory and the chance to see the Sun with the observatory's solar scope or small telescopes if the weather allows it.

If the weather is not good, a small planetarium session will be offered in the observatory pointing out objects of interest.

At 5pm we will continue to CEL 015 for the talk on light scattering.

Booking is required for this event. Please contact [Daniel Brown](#) to register.

For further information about the optical observatory, please visit the [observatory website](#).

## Small Advertisements

### Telescope for sale

Meade 2080 8-inch f/10 Schmidt-Cassegrain with field tripod and wedge. Reflex sight, 6mm, 12.5mm, 25mm and 32mm eyepieces, 2X Barlow, 0.4X telecompressor, two 90° erecting prisms; 45° roof prism. All in excellent condition in fitted trunk/case. Offers to 0115 937 6333 or [rockvision@btinternet.com](mailto:rockvision@btinternet.com) (Keyworth)

Mike Sumbler

### FOR SALE

**Vixen** single-axis (Right Ascension) drive motor and hand controller to fit Great Polaris or GP-DX equatorial mount.

Also battery case for use with the above.

**£20**

Email the Editor: [roygretton@hotmail.co.uk](mailto:roygretton@hotmail.co.uk)

*NAS Members may submit private advertisements for inclusion free of charge in the Journal. Please email the Editor.*

# 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 Campaign for Dark Skies  
Registered Charity No: 1066645

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

## **CAMPAIGN FOR DARK SKIES**

### **REPRESENTATIVE:**

**Barrie Chacksfield**

email: [b.chacksfield@bgs.ac.uk](mailto:b.chacksfield@bgs.ac.uk)

## **ORDINARY COMMITTEE MEMBERS:**

**Joe Sowerby**

**Dorothy Sowerby**

**Kevin Greally**

**David Anderson**

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## **Meetings**

Our meetings, often with an illustrated talk by a guest speaker, are held on the first Thursday of each month (except in August) at:

**The British Geological Survey  
Nicker Hill  
Keyworth  
Nottingham NG12 5GG**

Doors open 7.30pm

**Meetings start 8.00pm**

Meetings end 10.00pm

Meetings are open to the public, and visitors are always welcome to attend.

## **Annual subscriptions 2011**

Full	£25
Concessions	£12.50
Joint rate for partners living at the same address	£37.50

Subscriptions become due on 1<sup>st</sup> January. Half-price subscription is charged if joining after 1<sup>st</sup> July. Please make cheques payable to: Nottingham Astronomical Society.

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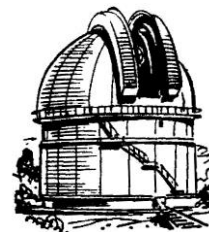
If you would like more information about the **Nottingham Astronomical Society**, or would like to become a member, please contact the Secretary [info@nottinghamastro.org.uk](mailto:info@nottinghamastro.org.uk) or speak to any NAS committee member at one of the regular monthly meetings. A membership 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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Affiliated to the British Astronomical Association  
Member of the Federation of Astronomical Societies

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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	£25.00	(year)	£12.50	(half year)
	Concession	£12.50		£6.25	
	Partnership	£37.50		£18.75	

Concession = under-18 / full-time student / unemployed and receiving benefits

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:**