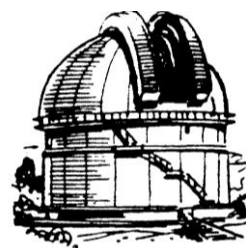

Journal

of the



Nottingham Astronomical Society

April 2011

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Thursday, April 7th

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

Tonight's talk is by
Dr Roy Gretton
NAS Vice President

on the subject of

**“Backyard Telescopes and
Observatories”**

MESSENGER BEGINS SYSTEMATIC MAPPING OF MERCURY

As I write this on April 4th, the Messenger spacecraft is scheduled today to begin its mission to map the entire surface of the solar system's innermost planet in great detail. Over the next year it will transmit about 80,000 images back to Earth, as well as data from seven science experiments. NASA has reported that all the instruments are now turned on and working normally.

Messenger flew past Mercury three times in 2008 and 2009, and went into orbit around the planet on March 17th this year, becoming the first spacecraft ever to do so. Mercury's cratered surface resembles that of our Moon, but is considerably darker. The planet has about half the mass of Mars, and yet sustains a strong magnetic field, which presumably has persisted for billions of years since Mercury was formed.

An intriguing question the team hope to be able to answer is whether water ice exists in craters near Mercury's south pole. This is considered to be a possibility, even as close to the Sun as this, since ice might have been delivered by comets, and be able to persist in the shadows.

Sky Notes

April 2011

Compiled by Roy Gretton



PHASES OF THE MOON

New Moon occurs on April 3rd at 3.30 pm **BST**

First Quarter occurs on the 11th at 1.05 pm

Full Moon occurs on the 18th at 3.45 am

Last Quarter occurs on the 25th at 3.47 am

This month the Moon is closest to Earth on the 17th, and furthest from Earth on the 2nd.

THE PLANETS

There is an acute shortage of planets to observe at the present time. Only Saturn is well placed for observation this month. The other six seem to be very shy!

Mercury passes through inferior conjunction on April 9th, after which it becomes a morning object, very poorly placed for UK observers.

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

Mars is virtually unobservable this month.

Jupiter reaches conjunction with the Sun on April 7th, and is therefore unobservable.

Saturn, in the constellation of Virgo, is a glorious sight through a telescope. It reaches opposition to the Sun on April 5th, making this month the best in 2011 for observing the planet, which will be on view throughout the hours of darkness, and due south at 1 a.m. BST, at an elevation of about 36 degrees when viewed from Nottinghamshire. The rings have opened further, and the northern hemisphere of the planet, where a bright storm has been raging in recent months, is fully exposed to view.

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

METEORS

The **Lyrids**, April's best meteor shower, reach their maximum activity on the 23rd, but a bright waning Moon will make observation difficult.

VARIABLE STAR: Algol (Beta Persei)

There are two minima of this eclipsing binary visible from the UK this month. They occur on April 17th (3 am **BST**) and on the 19th (just before midnight). 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

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, 7th April 2011

Talk: “ **Backyard Telescopes and Observatories** ”

Dr Roy Gretton

Vice President, Nottingham Astronomical Society.

Thursday, 5th 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, 7th 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

<p>Thursday, 1st September</p> <p>Members' Evening (visitors welcome) - Topics to be arranged</p>
<p>Thursday 6th October</p> <p>Talk: “ Journey to the Aurora of Jupiter ” The 2018 NASA/ESA Double Mission to the Jupiter System</p> <p>Dr Nigel Bannister Department of Physics and Astronomy University of Leicester</p>
<p>Thursday 3rd November 2011</p> <p>2011 Annual General Meeting</p>
<p>Thursday 1st December 2011</p> <p>Dramatic Lecture : “ Fire from the Sky - the Tunguska Incident ”</p> <p>Andrew Lound</p>

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

NAS Journal e-mailing list

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

info@nottinghamastro.org.uk

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

Public astronomy lecture at the University of Nottingham

"Supernovae and Stellar Fireworks"

Date: Thursday 14th April 2011

Time: 6-7 pm

Speaker: Markus Hammonds

Venue: Maths & Physics Building (B1)
University Park Campus
Nottingham

Nottingham Trent University Open Dome Event - "Orion Nebula - How could we miss that one?"

Date: Friday, 15 April 2011

Time: 8pm - 10pm

Event: Open Dome Event - Orion Nebula - How could we miss that one?

Location: CELS and Optical observatory, Clifton campus

Details:

Winter and its amazing constellations have now well passed. You might all have had the chance to see the constellation of Orion and may have even noticed the Orion Nebula with the naked eye. But it was only discovered in the 17th century and with the help of telescopes! How could astronomers in the past like Gallileo or Ptolemy have missed this? The event will start at 8pm in CEL 015 with a talk on The variable Orion Nebula by Dr D. Brown (NTU / SST). In this talk, he will describe what makes this impressive nebula glow and how it has become brighter throughout known history. We will also hear who first discovered the Orion nebula.

Afterwards, visitors will be introduced to what is visible in the evening's sky, followed by a tour of the NTU observatory. They will have the chance to see interesting objects in the spring sky with the observatory's 20 and 14 inch telescope, small telescopes, and binoculars (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.

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 (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

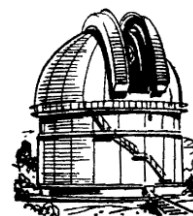
Email the Editor: roygretton@hotmail.co.uk

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

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. 1066645
Member of the Society for Popular Astronomy
Supporter of the Campaign for Dark Skies



Membership application and Gift Aid declaration

Title:

Full name:

Full home address:

Postcode:

Telephone:

e-mail address:

Subscription rate:	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:

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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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Dorothy Sowerby

Kevin Greally

David Anderson

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 1st January. Half-price subscription is charged if joining after 1st July. 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 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.

The Nottingham Astronomical Society

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