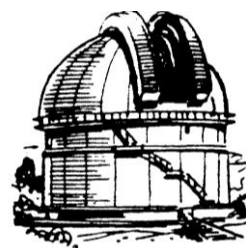

Journal

of the



Nottingham Astronomical Society

April 2009

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Thursday, 2nd April

at the

British Geological Survey

Nicker Hill, Keyworth

8 pm (doors open at 7.30pm)

Tonight we welcome

Dr Olivia Johnson

of the **School of Physics & Astronomy, University of
Nottingham**

who will be speaking on

**'The Little Engine That Could: How Black
Holes Shape Our Universe'**

THE KEPLER MISSION BEGINS

On March 7th NASA's latest space telescope, named Kepler, was launched successfully into solar orbit on board a Delta II rocket from Cape Canaveral. Kepler is the first space mission designed specifically to detect Earth-sized planets in orbit around other stars. It is equipped with a Schmidt telescope having an aperture of three feet, and a 95 megapixel array of 42 CCD detectors that will look for the minute dimming caused when a planet transits across the face of a distant star. One hundred thousand Sun-like stars have been selected for examination, and data from each star will be recorded on board the spacecraft and transmitted to the ground about once a month. The mission is planned to last for at least 3½ years, after a commissioning period of two months. Kepler's orbit will trail about 1000 miles behind the Earth, and from there it will have an uninterrupted view of a 105 square degree portion of sky in the constellations of Cygnus and Lyra. From the results it is intended to obtain a statistical measure of the number of Earth-like planets in this area of sky. Further, more ambitious missions are currently being planned.

Sky Notes

April 2009

Compiled by Roy Gretton



PHASES OF THE MOON

First Quarter occurs in the afternoon of April 2nd
Full Moon occurs in the afternoon of the 9th
Last Quarter occurs in the afternoon of the 17th
New Moon occurs in the early morning of the 25th

THE PLANETS

The second half of April provides the best opportunity of the year for observing **Mercury** in the evening sky. Greatest eastern elongation occurs on the 26th, when the planet will be 20 degrees from the Sun, and will be setting more than two hours after the Sun. One hour after sunset, Mercury will be nine degrees above the horizon at a compass bearing of 296 degrees. At magnitude 0.4 it should be an easy naked-eye target – although binoculars might also be helpful – provided you stand somewhere with a low north-western skyline, and there are no clouds in the way. I read somewhere that even the great Copernicus never observed Mercury (which is hard to believe), but it is certainly true that only a tiny proportion of the population have ever seen this planet – so if you have not done so, why not join the privileged few by taking a look at Mercury this month?

Venus, having graced the evening sky throughout the winter months, has now disappeared from view, but will reappear in the morning sky toward the end of this month.

Mars is also present in the pre-dawn sky, but is too faint and close to the Sun for useful observation.

Similar comments apply to the giant planet **Jupiter** this month. It is present in the morning sky, but still in the constellation of Capricornus, and therefore very low down when viewed from the northern hemisphere.

Saturn is undoubtedly the planet best-placed for observation this month. It lies below the familiar outline of Leo the Lion, reasonably high in the south during the evening. The famous rings were almost edge-on to us in January, but they have now opened out slightly, and should therefore be visible in quite small telescopes. If you have a larger instrument you should be able to see some features of the cloud-tops of the planet, while several of Saturn's satellites will be visible, changing their positions from night to night.

Uranus and **Neptune** are too close to the Sun to be observable this month.

METEORS

The **Lyrids** should be active from April 19th to the 25th. The best time for seeing these meteors will be in the early hours of Wednesday, April 22nd, when, with the radiant high in the eastern sky, up to ten events per hour can be expected. The Moon will be too close to New to interfere with observations.

VARIABLE STAR: Algol

There are **three** minima of this **eclipsing binary** visible from the UK this month. They occur on April 10th (5.05 am BST), the 13th (1.55 am BST), and the 15th (10.40 pm BST). The star dims from its normal brightness (magnitude 2.1) to magnitude 3.4 over a period of 4.8 hours.

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 'Beehive' website:

<http://beehive.thisisnottingham.co.uk/nottinghamastro>

NAS Journal e-mailing list

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

nottinghamastro@yahoo.co.uk

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

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.

DIARY DATES 2009

Meetings of the Nottingham Astronomical Society

Our programme for the coming months is below. Don't forget to check our website:
<http://beehive.thisisnottingham.co.uk/nottinghamastro>
for the latest information about the Society's meetings and observing sessions.

Thursday 2 April 2009

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Talk: '**The Little Engine That Could: How Black Holes Shape Our Universe**'
Dr Olivia Johnson
of the School of Physics & Astronomy, University of Nottingham

Thursday 7 May 2009

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Talk: '**The Lost Gardens of Fireside:
Where did James Nasmyth live?**'
Kevin Kilburn FRAS

Thursday 4 June 2009

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Talk: '**The Search for Extraterrestrial Intelligence**'
Dr Mike Leggett FRAS

Diary Dates 2009 continued

Thursday 2 July 2009

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Talk: '**Edwin Hubble**'
Dr Ann Bonell

August - Summer break

Thursday 3 September 2009

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Talk: '**The time has come...!**'
Dr Paul Roebuck

Thursday 1 October 2009

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Talk: '**Sounding out the Sun**'
Dr Roger New
Sheffield Hallam University

Thursday 5 November 2009

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Annual General Meeting 2009

please see the Agenda in this issue of the Journal

Thursday 3 December 2009

British Geological Survey, Keyworth

8.00pm (Doors open 7.30pm)

Talk: **'The Magnetic Solar System - an unfolding tale of plasma, planets and probes'**

NAS member Dr Jon Woodcock

from the Astronomy Unit at Queen Mary, University of London

*If you know of anyone who is willing to give an astronomy or science-related talk at one of our
monthly meetings, please let the **Secretary (or any committee member)** have their
contact details*

Special Event at BGS, Keyworth

The Nottingham Astronomical Society will be hosting a special public astronomical evening on the 26th September, at the British Geological Survey site in Keyworth, as part of the IYA2009 celebrations.

More details will be available soon.

NAS Annual Dinner 2009

This year's annual dinner will be at 7.30pm on Wednesday , 29th April
at
The Rancliffe Arms at Bunny*.

The annual dinner is a friendly, informal event. All NAS Members, their families and friends are welcome!

If you plan to attend the dinner, please let Fred Hopper or Rob Bush know how many will be in your party either at the 2nd April meeting, or by e-mail (before 15th April) to nottinghamastro@yahoo.co.uk

*There is a bus service between Bunny and Nottingham (Broad Marsh).

MENU

2/3 Course Carvery

STARTERS will include:

- STILTON MUSHROOMS
Field mushrooms cooked in cream, stilton cheese and garlic served in a filo pastry crown.
- SOUP OF THE DAY
Home-made daily served with fresh bread.
- FRESH MELON
Sweet galia melon served with winter fruits.

MAINS

- ROAST TOPSIDE OF BEEF with Yorkshire pudding
- TRADITIONAL ROAST TURKEY
- ROAST PORK with Sage & Onion Stuffing

SELECTION OF FRESH MARKET VEGETABLES AND POTATOES
VEGETARIAN OPTIONS WILL BE AVAILABLE.

DESSERTS

- CHEFS DESSERT TABLE

3 COURSE: £16.50 per head

2 COURSE(no starter): £11.75 per head

Small Advertisements

Equipment for sale

Celestron 1 1/4" visual back	£5
Celestron 1 1/4" star diagonal (prism)	£10
Celestron 1 1/4" 40mm Plossl eyepiece	£10
Celestron 9x50 finderscope with SCT bracket	£10
Celestron 2" star diagonal (mirror)	£20

Please contact Sam Boote
s.boote@bcs.org
0115 937 4644

For Sale

10 inch reflector telescope, focal length 63 inches
with RA Drive
two eyepieces
and storage shed

Any reasonable offer accepted

Phone **Mr Chambers**
0115 914 1454

For Sale

Meade Telescope with GOTO control system £100

4.5" (114mm) equatorial reflecting telescope, with Starfinder
Electronic Hand Controller

910mm focal length, f/8

precision polished 4.5" aluminized mirror

5x24mm viewfinder

Contact John Aitken

Tel: 01476 577599

Email: j_aitken@hotmail.co.uk

NAS Membership application 2008/09

If you would like to join the Nottingham Astronomical Society, please complete the form below. Hand the slip and payment (cheque or cash) to the Treasurer at any of the Society's meetings.

If paying by cheque, please make it payable to **Nottingham Astronomical Society**. Alternatively, you may post the slip and your cheque (*not cash*) to

Sam Boote, Treasurer
Nottingham Astronomical Society
17 Rannock Gardens
Keyworth
Nottingham NG12 5FQ

Title: _____ Name: _____

Address including postcode: _____

Telephone: _____

e-mail: _____

please tick one box

Subscription rate: Normal £25.00

Concession £12.50

Half-year* £12.50

**Half-year is available from 1 April to 30 September*

Gift Aid

Do you pay Income Tax and/or Capital Gains Tax? If so, would you like to register for Gift Aid? Please ask the Treasurer for a Gift Aid declaration form. You need to fill it in only once. As a registered charity, the Society will get £6.25 from the taxman for each £25 subscription. You have to be a UK tax payer in order to participate in Gift Aid.

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

PRESIDENT:

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Dr Roy Gretton

e-mail: roygretton@hotmail.co.uk

**DIRECTOR OF OBSERVING and
CURATOR OF INSTRUMENTS**

John Hurst

email: jmhurst@hotmail.co.uk

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

ORDINARY COMMITTEE MEMBERS:

Joe Sowerby

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 & October) 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 2008-09

Adult	£25
Junior (under 18 years)	£12.50
Concessions	£12.50

Subscriptions become due on 1 October. Half-price subscription is charged if joining after 1st April. 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 nottinghamastro@yahoo.co.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.
