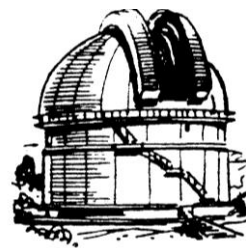

Journal

of the



Nottingham Astronomical Society

January 2010

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Thursday, 7th January
at the
British Geological Survey
Nicker Hill, Keyworth
8 pm (doors open at 7.30pm)

Tonight we gather for a
Members' Evening
which will include talks on

**Astrophotography with a
Digital SLR Camera**
and

**After the Space Shuttle, What Next? -
NASA's plans for the future of human
spaceflight**

**The Committee wishes all members and friends of the Society
a very happy and prosperous New Year**

Some astronomical highlights to look forward to (weather permitting!) in 2010 are:

- The brightest asteroid, Vesta, is at opposition on February 8th, when it will be shining at magnitude 6 – an easy binocular target
- Jupiter and Uranus will pass within half a degree of each other on June 8th
- Conditions will be very favourable for the Perseid meteor shower on August 12th
- The brightest periodic comet to be visible this year will be Comet Hartley, which will make a close approach to Earth in October, and is predicted to brighten to magnitude 4.7
- A total lunar eclipse will be visible from Britain as the Moon sets on December 21st.

Sky Notes

January 2010

Compiled by Roy Gretton



Earth will be at **perihelion** (its closest approach to the Sun) on January 3rd, when the two bodies will be 147 million kilometres apart.

PHASES OF THE MOON

Last Quarter occurs on the morning of January 7th

New Moon on the morning of the 15th

First Quarter occurs on the morning of the 23rd

Full Moon occurs on the morning of the 30th

THE PLANETS

Mercury is difficult to observe this month, but using binoculars you may be able to find it in the southeast about 40 minutes before sunrise, between January 16th and the 21st, shining at magnitude zero against the stars of Sagittarius.

Venus reaches superior conjunction (on the far side of the Sun) on January 11th, and is therefore unobservable this month.

Late January will be the best time for observing **Mars** during the current apparition. On the 29th the planet will be at opposition to the Sun, and therefore due south at midnight. Its angular diameter will be 14 seconds of arc. Look for a bright orange “star” shining at magnitude -1.2 in the constellation of Cancer.

Jupiter, having been prominently visible in the evening sky since last summer, will at long last virtually disappear from view by the end of this month.

Saturn, in the constellation of Virgo, and shining at magnitude $+0.8$, is well-placed for observation in the morning sky. The ring system continues to tilt toward the Earth, but will remain at a slender angle for some months.

Both **Uranus** and **Neptune** are unfavourably placed for observation this month.

METEORS

The **Quadrantids** reach a brief maximum of activity on the night of January 3rd – 4th, when up to 100 meteors per hour may be observed under ideal conditions. However, moonlight will be a serious problem this year.

VARIABLE STAR: Algol

There are **four** minima of this **eclipsing binary** visible from the UK this month. They occur on January 1st (8.05 pm), the 16th (4.10 am) and the 19th (1 am), the 21st (9.50pm). The star dims from its normal brightness (magnitude 2.1) to magnitude 3.4 over a period of 4.8 hours.

DIARY DATES 2010

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 7th January 2010

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

Members Evening, with short talks by members of the NAS, including

'Astrophotography with a DSLR Camera' Dr Roy Gretton

**'After the Space Shuttle, What Next? -
NASA's plans for the future of human spaceflight' Paul Stocks**

Thursday 4th February 2010

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

Talk: **'Observatories without Telescopes'**
Dr. Daniel Brown
from the School of Science & Technology
Nottingham Trent University

Thursday 4th March 2010

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

Talk: **'Observing Orion'**
Paul Money

Thursday 1st April 2010

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

Talk: **'Saturn Lord of the Rings'**
Andy Lound

Thursday 6th May 2010

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

Topic to be confirmed

Thursday 3rd June 2010
British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Talk: **'Is there or has there been Life on Mars?'**
Prof. Mark Sims
Physics and Astronomy Department
University of Leicester

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

Nottingham Trent University "Open Dome Event"

The next [Open Dome Event](#) is on **Monday 25 January at 8.00pm.**

The Open Dome Events, held regularly at NTU's Clifton Campus, offer an insight into the fascinating world of astronomy. Those attending the event will be taken on a tour of the Optical Observatory, which houses a 20 inch telescope, a 'solar scope' and a range of smaller telescopes. There will also be opportunities to explore the wonders of the sky above us, using the facilities available at the observatory*.

Each Open Dome Event includes a talk focusing on interesting, recent and sometimes surprising topics relating to astronomy. Members of the audience will also have time to talk to scientists about astronomy and ask questions raised during the event.

* Opportunities to observe the sky are largely dependent on weather conditions.

Date: 25 January 2010

Time: 8.00pm - 10.00pm

Event: Open Dome Event: Space - the final frontier

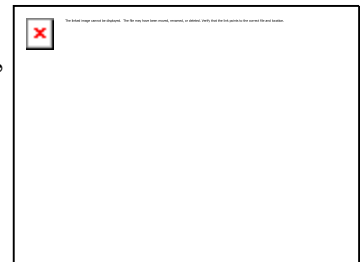
Location: Clifton Campus, Nottingham Trent University

The event will meet at 8.00pm in the foyer of the CELS building

For 80 years astronomers have used a law called the 'Hubble relation' to measure distances to other galaxies. Using this law we have begun to understand the immense size of our Universe and how it has evolved. This event will investigate the Hubble relation and the man who discovered it. Dr Daniel Brown will begin the evening with a talk entitled *'Hubble what? – The unknown discoverer of the Hubble relation'*, which will introduce the discoverer of the Hubble relation and one of the basic methods of determining the distances between galaxies. Following this will be a tour of the NTU observatory, during which visitors will be able to observe interesting objects in the night sky using the NTU telescopes. If, due to poor weather, it is not possible to observe, a small planetarium session will be offered in the observatory dome.

Due to limited space inside the observatory, booking is required. Please contact [Daniel Brown](#) (Email: daniel.brown02@ntu.ac.uk) to register.

For more details on the Open Dome event, please see the [observatory website](#) (http://www.ntu.ac.uk/cels/outreach/Optical_observatory/index.html) or contact [Daniel Brown](#).



January Public Lecture at Nottingham University
"LHC (Large Hadron Collider) and the Early Universe"

Dr. Ed Copeland

Thursday, 21st January, 6-7pm.
Lecture theatre B1
Maths and Physics Building
University Park Campus
Nottingham
NG7 2RD

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.

Small Advertisements

BIG CLEAR-OUT

I need to dispose of some Tele Vue, Losmandy, Meade and Celestron telescopes and other equipment. For a full detailed list, please contact Sam Boote:

0115 937 4644

s.boote@bcs.org

www.sboote.demon.co.uk/astro

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.

£28

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.

**Are you new to Astronomy? The BAA "Back to Basics"
Workshop is for YOU!
30th January 2010
University of Nottingham NG7 2RD**

The **British Astronomical Association** has designed a programme of talks and practical sessions to help you learn basic techniques and develop your interest to its full potential. Experienced people will be on hand to answer your questions.

The cost of this event is £11.00 to BAA members and £13.50 to non-members (price includes all refreshments and a buffet Lunch, vegetarian option available). The day starts at 09:30 with registration and finishes at 17:30.

Bookings with remittance should be sent no later than **18th January 2010** to: -The British Astronomical Association, Burlington House, Piccadilly, London, W1J 0DU.

**University Park Campus,
Cripps Centre for Astronomy & Particle Theory
From Nottingham (approximately 3 miles)**

By Bus:

University Park Services

Nottingham City Transport, Uni Link service 34 – A direct service between Nottingham City Centre and University Park – term time only

University Boulevard Services

Nottingham City Transport, Service 13 – Every 20 minutes during day time peak

Nottingham City Transport, Service 14

Trent Barton, Rainbow 5 service

Trent Barton, service 18

Trent Barton, service 20

Derby Road Services

Trent Barton, service 36

Trent Barton, service 35

Further detail on buses can be found at: <http://www.nottingham.ac.uk/estate/transport.htm>

From M1 Motorway:

Leave the M1 motorway at Junction 25 to join the A52 to Nottingham. Turn right at The Priors roundabout (about 4 miles from M1), then left at next roundabout to enter the University's West Entrance.

By Taxi:

There are taxi ranks throughout the City Centre and adjacent to the main railway and bus station

Our Hosts: –

The Nottingham Astronomical Society was founded in 1946 and the membership now exceeds 50. The Society is grateful to the British Geological Survey for providing a well-equipped meeting room on a permanent basis for our meetings.

The BAA "Back to Basics" Workshop BOOKING FORM

BOOKING FORM

Name of member	Name of guest
Address	
Phone no.	E-mail

Lunch: Vegetarian option. Yes/No.

PAYMENT METHOD (Please tick appropriate box):

I enclose cheque or postal order payable to: THE BRITISH ASTRONOMICAL ASSOCIATION	<input type="checkbox"/>
Please charge my Visa / MasterCard / Switch / Delta / Maestro / Amex account <input type="checkbox"/>	
Card number	
Valid From	
Expiry	
Card security code	
Switch issue no.	
Name on card	
Signature	
Date	

Please complete this form and send it to: The British Astronomical Association, Burlington House, Piccadilly, London W1J 0DU by the closing date of **18th January 2010** (Telephone: 020 7734 4145).

Programme - All details correct at the time of printing.

09.30	Registration – Tea/coffee
10:00	Official welcome – BAA President, Dr David Boyd
10:05	So what astronomy can I do? – BAA Speaker, Hazel Collett.
10:15	Lunar observing – BAA Speaker, Martin Morgan-Taylor
10:45	Time to circulate and visit the retailers
11:00	Solar observing – BAA Speaker, Peter Meadows
11.30	What equipment & books do I need? – BAA Speaker, Dr Stewart Moore
12.15	Lunch
13:30	Observing Saturn & Jupiter – BAA Saturn Section Director, Mike Foulkes
14.00	Observing Double Stars – John McCue
14:30	Time to circulate and visit the retailers
14.45	2 × 30 minute workshop sessions
15.45	Afternoon Tea & Time to circulate and visit the retailers
16:30	2 × 30 minute workshop sessions
17:30	Feedback and Q&A session
17.35	Closing address – BAA President, Dr David Boyd

NAS Membership application 2009/10

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:	Full	£25.00	<input type="checkbox"/>
	Concession	£12.50	<input type="checkbox"/>
	Half-year*	£12.50	<input type="checkbox"/>
	Concession half-year*	£6.25	<input type="checkbox"/>
	Joint rate for partners living at the same address:	whole year	£37.50 <input type="checkbox"/>
		half year*	£18.75 <input type="checkbox"/>

**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

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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)

CAMPAIGN FOR DARK SKIES

REPRESENTATIVE:

Barrie Chacksfield

email: b.chacksfield@bgs.ac.uk

ORDINARY COMMITTEE MEMBERS:

Joe Sowerby

Dorothy Sowerby

Kevin Greally

David Anderson

Julie Morledge

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 2009/10

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

Subscriptions become due on 1st 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.

The Nottingham Astronomical Society

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