# Journal





## Nottingham Astronomical Society March 2009

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## **Thursday**

at the

British Geological Survey Nicker Hill, Keyworth

8 pm (doors open at 7.30pm)

Tonight we welcome Dr Amanda Bauer

of the School of Physics & Astronomy, University of Nottingham, who will be speaking on

'A Long Time Ago in Galaxies Far, Far Away'

#### TRY FINDING THE REDDEST STARS!

A nice little exercise for aspiring observers is to spot the two reddest naked-eye stars. Both are in the northern hemisphere, and are around magnitude 4, so binoculars will be handy for observation from light-polluted Nottinghamshire.

The reddest of these is Mu Cephei, the "Garnet Star". It is circumpolar, being only 32° from the north celestial pole, and visible on a March evening in the northwest, to the right of Cassiopeia. The second reddest is reckoned to be 119 Tauri, sometimes referred to as the "Ruby Star". This is to be found high in the southwest, above the constellation of Orion, and about four degrees south of the Crab Nebula.

Both of these objects are classed as red supergiants. For a red star to be bright it must also be very large, as a reddish source emits much less light per unit area than does a white source.

## Sky Notes March 2009





**The Vernal Equinox**, when the Sun, heading northward as viewed from Earth, crosses the celestial equator, occurs sixteen minutes before midday on March 20<sup>th</sup>.

**British Summer Time** begins on Sunday, March 29<sup>th</sup>. Clocks go forward one hour at 2 am on that date.

#### PHASES OF THE MOON

First Quarter occurs on the morning of March 4<sup>th</sup> Full Moon occurs in the early morning of the 11<sup>th</sup> Last Quarter occurs in the late afternoon of the 18<sup>th</sup> New Moon occurs in the afternoon of the 26<sup>th</sup>

#### THE PLANETS

**Mercury** begins the month as a morning object (but very difficult to observe), and reaches superior conjunction (the position on the far side of the Sun) on March 31<sup>st</sup>.

**Venus** continues to grace the evening sky as the month begins, but will be rapidly moving in toward the Sun, and will have disappeared completely by end of the third week of March. It reaches inferior conjunction (between Earth and Sun) on March 27<sup>th</sup>. The first half of March will provide an excellent opportunity to view the planet with a small telescope or binoculars, as it will appear as a thin crescent about 50 arcseconds long, easily discernable 10 x 50 binoculars, provided you hold them steadily enough.

Mars continues to be unobservable this month.

**Jupiter** is a very challenging target for early-risers, as it is a morning object, low down among the stars close to the border of Aquarius and Capricornus. We shall have to wait until the summer for this giant planet to come to prominence.

**Saturn** reaches opposition (due south at midnight) on March 8<sup>th</sup>, and throughout the month is visible for the whole night in the constellation of Leo. At magnitude +0.5 it outshines Regulus, but its opposition brightness is lower than average because the Earth is very close to the plane of the rings. The movement of Saturn's largest satellite, Titan (magnitude 8), is easy to follow through a small telescope. It can be seen about three arcminutes due east of the planet on March 9<sup>th</sup> and 25<sup>th</sup>, and due west eight days later.

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

#### **METEORS**

The **Virginids** become active in late March, producing a handful of events per hour. Virginid meteors tend to be relatively slow-moving.

#### **VARIABLE STAR: Algol**

There are **five** minima of this **eclipsing binary** visible from the UK this month. They occur on March 1<sup>st</sup> (12.40 am), the 3<sup>rd</sup> (9.30 pm), the 18<sup>th</sup> (5.35 am), the 21<sup>st</sup> (2.25 am) and the 23<sup>rd</sup> (11.10 pm). The star dims from its normal brightness (magnitude 2.1) to magnitude 3.4 over a period of 4.8 hours.

**COMET 2007 N3 (Lulin)** continues to be an easy binocular object as the month begins, moving westward over the front legs of Leo the lion, with no interference from moonlight. On March 2<sup>nd</sup> it passes into the constellation of Cancer, and on the night of the 5<sup>th</sup>-6<sup>th</sup> passes just south of the Beehive Cluster. But for about a week thereafter moonlight will be a problem, as the Moon is Full on March 11<sup>th</sup>. By then the comet will have reached Gemini, but will be fading as it moves further from the Earth and Sun.

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### 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: <a href="http://beehive.thisisnottingham.co.uk/nottinghamastro">http://beehive.thisisnottingham.co.uk/nottinghamastro</a>

#### 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:

<a href="http://beehive.thisisnottingham.co.uk/nottinghamastro">http://beehive.thisisnottingham.co.uk/nottinghamastro</a>

for the latest information about the Society's meetings and observing sessions.

#### Thursday 5 March 2009

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

Talk: 'A Long Time Ago in Galaxies Far, Far Away'
Dr Amanda Bauer

of the School of Physics & Astronomy, University of Nottingham

#### 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

#### Thursday 2 July 2009

British Geological Survey, Keyworth 8.00pm (Doors open 7.30pm) Talk: 'Edwin Hubble'

alk: 'Edwin Hubble' Dr Ann Bonell

#### August - Summer break

#### Thursday 3 September 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.

#### 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 the November issue of the Journal

#### Thursday 3 December 2009

British Geological Survey, Keyworth 8.00pm (Doors open 7.30pm) Topic to be confirmed

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

#### Sky Watch Special Event at Wollaton Hall - Saturday 14th March 2009

On the evening of Saturday 14th March 2009, the **Mansfield and Sutton Astronomical Society** is hosting a special public astronomical evening at Wollaton Hall as part of the IYA2009 celebrations.

The **Nottingham Astronomical Society** will have a stand at the event, with telescopes available to look at the night sky (weather permitting).

- Listen to presentations throughout the evening.
- View stunning astronomical photographs and learn how to take your own.

The event will also be attended by **Ilkeston Astronomical Society** and the University of Nottingham.

The entry fee is £3.50.

The event is open from 6:00pm until 10:00pm.

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Ken Willoughby, Carleton Community High School & St. Wilfrid's Catholic High School present "Apollo 13: A Successful Failure"

Capt. Jim Lovell (APOLLO XIII COMMANDER, Gemini 7 & 8, Apollo 8)

#### Friday October 2nd 2009 at 19:30

at St. Wilfrid's Catholic High School, Cutsyke Road, Featherstone, WF7 6BD.

Tickets £60 each. SAE to: Ken Willoughby, 11 Hardistry Drive, Pontefract WF8 4BU.

01977 795535. e-mail: ken.willoughby@btinternet.com

Please include your e-mail/telephone number.

Jim will sign copies of his book "Apollo 13." One autograph per person only.

Dinner with Jim on Thursday night at Wentbridge House Hotel 7:30pm-£60.

Group photos taken with Jim by Andrew Box and printed out on night - £10.

To reserve a ticket for the talk and/or dinner, please send £10 deposit and pay remainder before August  $1^{st}$ . Deposit for dinner is not returnable.

## **Small Advertisements**

## **Equipment for sale**

Celestron 90-degree erecting diagonal £10
Orion 9x50 erect-image finder (without mounting rings) £10

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: <u>j\_aitken@hotmail.co.uk</u>

## 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 po	stcode:			_
				_
Telephone:				
e-mail:				
		please ti	ck one box	
Subscription rate:	Normal	£25.00		
	Concession	£12.50		
	Half-year*	£12.50		
*Half-year is available fro	om 1 April to 30 Sept	ember		
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:

Fred Hopper

e-mail: fred.w.m.hopper@googlemail.com

VICE PRESIDENT:
Dr Roy Gretton

e-mail: roygretton@hotmail.co.uk

SECRETARY: Robert Bush

e-mail: nottinghamastro@yahoo.co.uk

TREASURER: Sam Boote

e-mail: s.boote@bcs.org

**JOURNAL EDITOR:** 

**Dr Roy Gretton** 

e-mail: roygretton@hotmail.co.uk

<u>DIRECTOR OF OBSERVING</u> 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 <a href="mailto:nottinghamastro@yahoo.co.uk">nottinghamastro@yahoo.co.uk</a> 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.