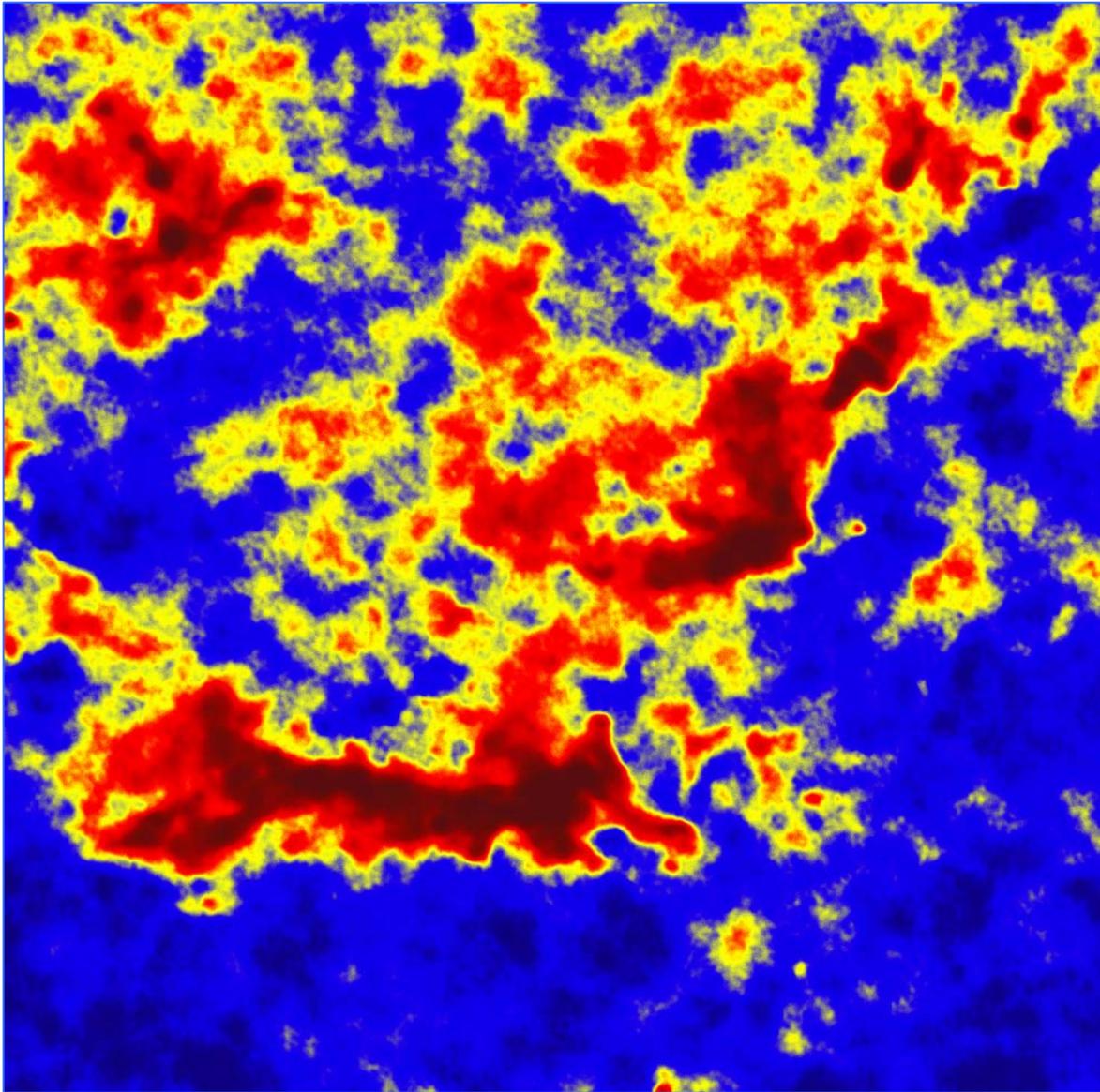


# 2002



**NEXT MEETING**  
**THURSDAY, 19<sup>th</sup> September 2013**

**THE ASTRONOMICAL SOCIETY OF HARINGEY**  
**VOLUME 41 : ISSUE 11: September 2013**  
**[www.ashastro.co.uk](http://www.ashastro.co.uk)**

# SOCIETY NEWS

## MEETING VENUE

Sixth Form Centre, Ashmole School, Southgate, London N14 5RJ.

The day for meetings is usually the third Thursday of each month. The exceptions are August, when currently we do not hold a meeting, and December, when the Christmas Meet has always traditionally been held during the second week. However, in case of changes, it is always advisable to double-check the dates below.

## IMPORTANT

**Remember we have had a change of meeting room.**

**Neither of the Sixth Form Centre rooms turned out to be really suitable, so we have been give a room in the Main Music Block, which is the two storey building, next to the original Music Room, See the next page**

For more on this, and general meeting information, also check the website:  
[www.ashastro.co.uk](http://www.ashastro.co.uk). Latest update September 2013

**Doors open - 7.30pm : Main speaker - 8.00pm : Finish - 10.00pm sharp!**

New or updated information is in *italics*

## 2013

**September 19<sup>th</sup> : Roger O'Brien : *Walking the Planck***

October 17<sup>th</sup> : AGM

November 21<sup>st</sup>

December 12<sup>th</sup> : Christmas Do – *possibly...*



### COVER

This 'psychedelic' image was taken by the Planck space observatory (left) on 26<sup>th</sup> April 2010.

It shows a star forming region in the Orion Nebula, taken at 143 GHz, and shows a mix of radiation sources.

Roger O'Brien will be giving more details about the results from Planck at the September meeting

*Copyright: ESA and the HFI Consortium*

## SOCIETY NEWS

### MEETING ROOM



Due to the new rooms we had been given in the Sixth Form Centre not being entirely suitable, we are moving again, this time to the Main Music Block.

This is the two-storey building, next to our original room, the now-demolished Music Room (marked with the X) - see the main photo on left. Note, especially for those walking, the easiest route from the Main gate is as the arrow depicts, ie not

the route you'd likely think of taking through the car park! We will be meeting in one of the first floor rooms, details will be posted as you come in. We hope a first floor will be suitable for all – as there isn't a lift. If anyone feels they will have difficulty – please let the Chairman know – contact details on back page.

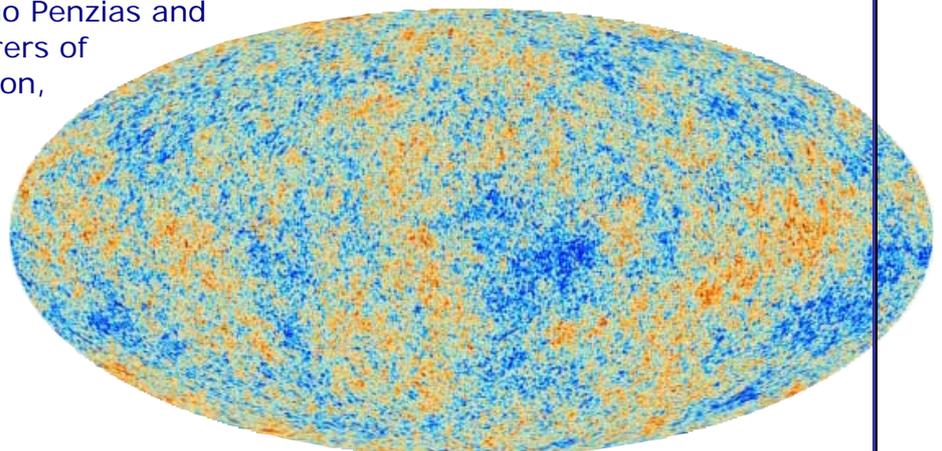
### MEETING PREVIEW : 18<sup>th</sup> September Roger O'Brien : "Walking the Planck"



The ESA Planck space observatory mission has refined some cosmological measurements, produced some amazing images – below the 'whole sky' image of the cosmic



microwave background radiation (CMB) - and also raised at least one important question. But it appears there is a notable anomaly in the Planck results and there has been some (Roger feels 'rather wild') speculation on the matter. Roger will be giving his views on that and also be taking a brief look back at Arno Penzias and Robert Wilson, as the discoverers of the cosmic background radiation, (image top right, at Bell Laboratories) and the COBE, (COsmic Background Explorer) and WMAP (Wilkinson Microwave Anisotrope Probe) space missions as well.



# CHAIRMAN'S QUARTERS



We've all been in the situation where someone is describing a scenario in rather graphic terms and a voice pipes up, "Too much information!" We have just that situation today, with data collected from just about anything under the Sun and given the generic term 'big data'. In earlier times information, or data, was collected by observation and put down on paper, either as words or drawings. This process took time and allowed the compiler and the reader to make sense of the content at a comfortable – human - rate. With the advent of electronic data storage, information began to be stored in a coded - non-human recognisable - form. Initial storage was 'analogue' which did not require complex decoding mechanisms or mathematical algorithms and data extraction was relatively easy. With the advent of digital storage the picture changed. Data was coded as streams of binary numbers and began to require specialised mathematical processes to decode and verify the data.

The earliest form of digital data storage was people's names, addresses and other 'necessary' information. With the advent of space exploration, satellite data became a 'consumer' of data storage. Initially, data (mostly images) tended to be printed out in real time, as it came in. The data rate was slow enough to allow this. As missions became more sophisticated, larger amounts of data were being received and the 'real time era' was over. The information was stored directly to large data banks and then selectively retrieved and analysed. Even in the early days, so much data was being amassed that analysing it became a major issue – to the point that much interplanetary data has still not been looked at because there just aren't enough people around to do so! As an example, much of the data sent back from the Voyager missions has still not been examined!

As the years progressed, storage mechanisms began to be able to store more data to the point that, nowadays, terabytes (far too many zeroes!) of data are being created and stored daily. With this large volume of information, analysis of it all leaves the human domain and computers have to be employed to 'make sense' of it all. However, the problem here is how to ask a machine to decide what this information means. As humans, we are able to look at information in a way which machines are not able to. Even 'simple' tasks for us, like pattern recognition, can be beyond the capability of a computer. A simple (and recent) example of this is Kevin Schawinski's, and Chris Lintott's *Galaxy Zoo* project. With very little training, people can easily differentiate between types of galaxies in an instant – a task which has been shown to be very inefficient, even by supercomputer, despite the best programming!

All this brings into question how data is analysed and how much trust one can put in the 'interpretation'. The "how" part depends on how good the models used for the programming are and how flawlessly the algorithms have been compiled – a small typo, gone unnoticed, can completely change the outcome of an analysis. Computers will relentlessly churn out results that can be meaningless but the machine would never know! The "trust" part introduces an even larger gremlin. This depends on the modelling used for the analysis. If there are several models in existence there can be a polarisation of opinion as to what the data means. The classic case of this is the interpretation of temperature data (and other factors) in deciding as to whether 'Global Warming' is real or not. The scientific jury is out on this one despite the bigness of the data available. Maybe by switching the polarity of the computers' data transport mechanism to positrons we can create a *Star Trek*-like 'Data', who would have no difficulty in interpreting 'big data'.

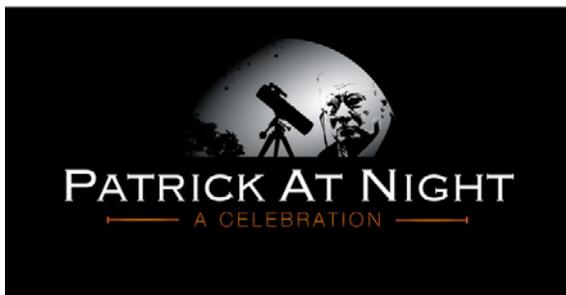
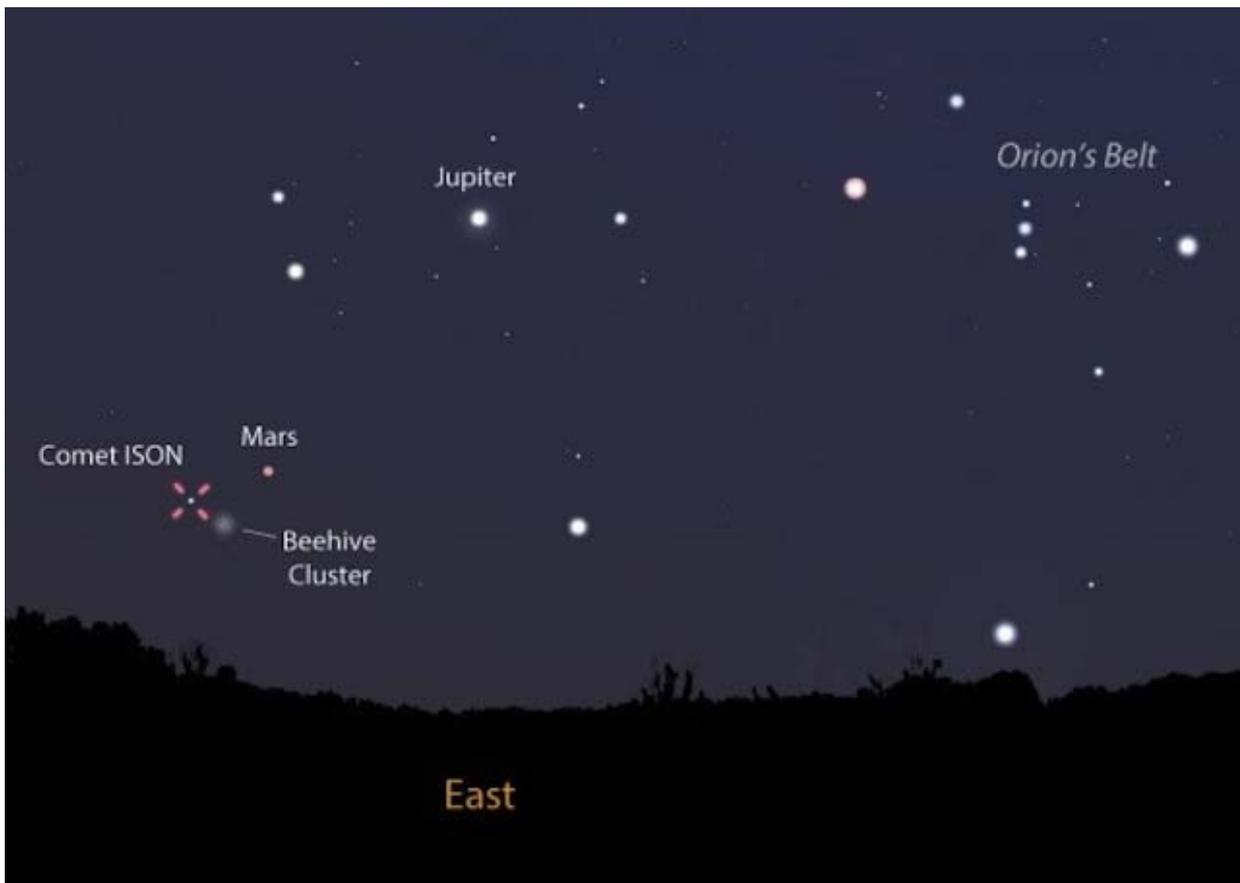
See you at the next meeting

**JIM**

# Sky Views



Comet ISON as photographed by the Hubble Space Telescope in May this year. Below is a map of the morning skies so you can find where it current is, for the early part of September anyway.



Slightly linked to this page - it is The Sky at Night after all - is a celebration of Patrick's life and times to be held at the National Space Centre on 28<sup>th</sup> September, 19.00 - 22.00hrs. Arranged by the RAS, you can book tickets via the NEC website

[www.spacecentre.co.uk/special-events/patrick-night](http://www.spacecentre.co.uk/special-events/patrick-night)

# THE NIGHT SKY

## THE PLANETS:

### September – October 2013

**MERCURY** : Was at superior conjunction on 24<sup>th</sup> August, moving back to the evening skies but not well placed for viewing. Moon to the north on 6<sup>th</sup> October. At greatest elongation east on 9<sup>th</sup> October. In conjunction with Saturn 10<sup>th</sup> October.

**VENUS** : Still bright at magnitude -4 in the north-west after Sunset, but still low down and invariably difficult to spot in twilight, so needing a clear horizon. The darker skies of this month however should make viewing easier in the twilight. Saturn to the north on 20<sup>th</sup> September, Moon to the north on 8<sup>th</sup> October.

**EARTH** : Autumn Equinox 22<sup>nd</sup> September.

**MARS** : Now in the morning skies at around magnitude 0.4, but the planet will not be easy to spot until December. Passes from Cancer into Leo as the month progresses. Moon to the south on 1<sup>st</sup> October.

**JUPITER** : Moved into the morning sky at the end of July. Moon to the south on 28<sup>th</sup> September.

**SATURN** : Sinking into the twilight as the month progresses. Moon 2° south on 7<sup>th</sup> October. In conjunction with Mercury, 10<sup>th</sup> October.

**URANUS** : At opposition on 3<sup>rd</sup> October. Moon to the north on 17<sup>th</sup> October.

**NEPTUNE** : Moon to the north on 15<sup>th</sup> October.

## COMETS

Comet ISON has emerged from behind the Sun, although (of course) it is not as bright as it was hoped it would be at this stage in its travels. Hopefully we will know more by next month is this really is going to be 'Comet of the Century'. See [SKY VIEWS](#) for more details.

Comet 2P/Encke also makes its return this year. Approaching the Sun in September, it will be in the evening skies though very faint at magnitude 12. It should be brighter in November, around magnitude 5 in the morning skies. Encke has a period of 3.3 years, shortest of any known comet.

## METEORS

The Orionids peak on 21<sup>st</sup> October

## THE MOON

There is a penumbral eclipse of the Moon on 19<sup>th</sup> September



New 5<sup>th</sup> September  
New 5<sup>th</sup>

First 12<sup>th</sup>  
First 11<sup>th</sup>

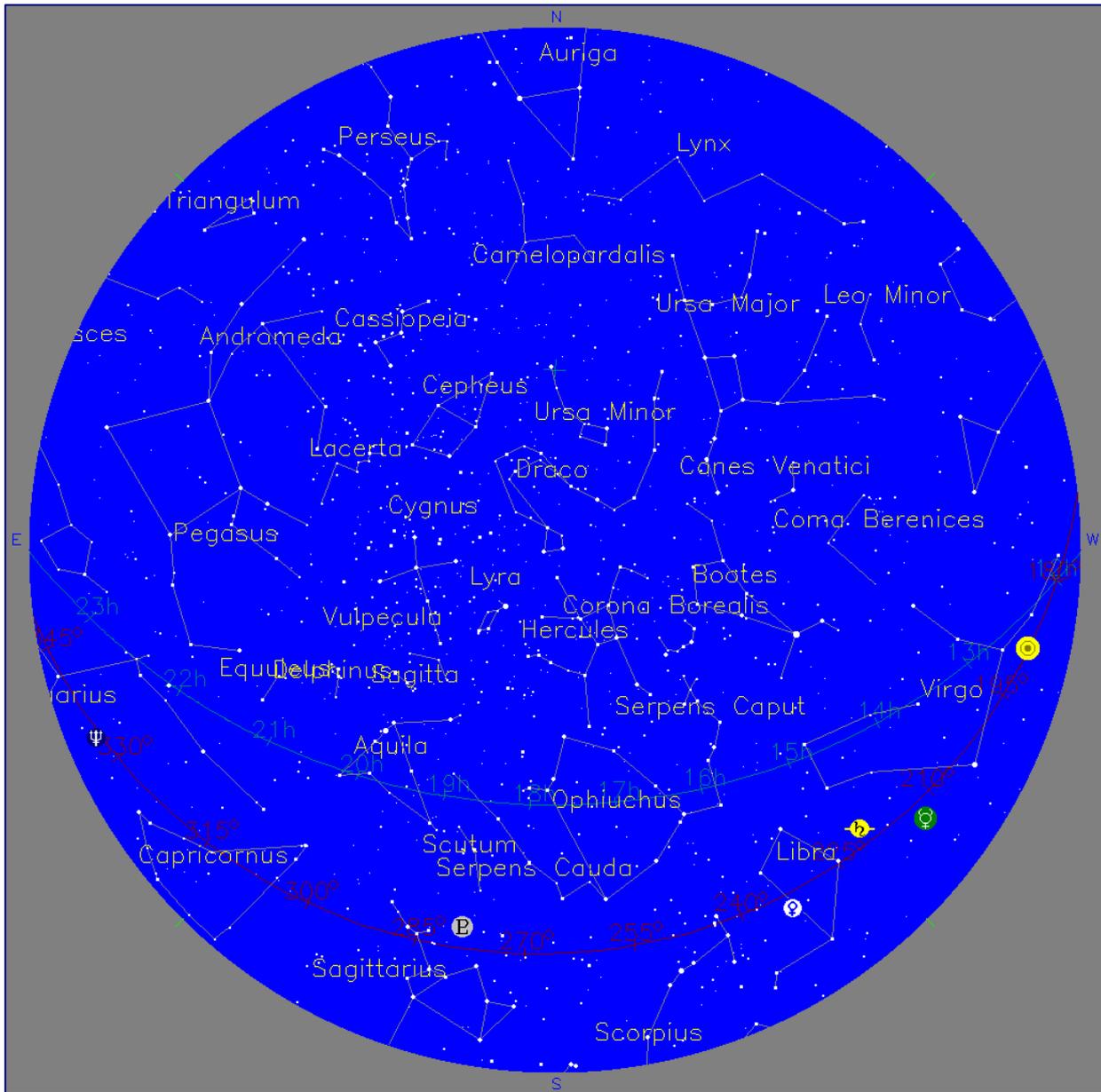
Full 19<sup>th</sup>  
Full 19<sup>th</sup>

Last 27<sup>th</sup>  
Last 27<sup>th</sup>

New 5<sup>th</sup> October  
New 3<sup>rd</sup> November

# THE NIGHT SKY : MAP

1<sup>st</sup> October 2013 18.00 BST [17:00 GMT/ UTC]



KEY	
 MERCURY	 SATURN
 VENUS	 URANUS
 MARS	 NEPTUNE
 JUPITER	 PLUTO



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