

# Public Observing at the Institute of Astronomy – 11<sup>th</sup> October 2006

**Institute of Astronomy** (<http://www.ast.cam.ac.uk/IOA/>, 01223 – 337548)

& **Cambridge Astronomical Association** <http://www.caa-cya.org/home/index.php>

Any comments or suggestions please to **Carolyn Crawford** ([csc@ast.cam.ac.uk](mailto:csc@ast.cam.ac.uk))

Welcome to the start of our public open evenings, which will be running every Wednesday throughout the winter season. There will be a 30 minute talk from a researcher in the department, starting at 7.15pm (doors open 7pm) and covering a different aspect of Astronomy each week at a general level. The talk is followed by an opportunity to observe with both modern and historical telescopes if the weather is clear. Remember that the observing may be cold, so please wrap up warmly. If you want to bring a torch to help you find your way about the site, please wrap up the end in something see-through and RED (such as an old transparent sweetie wrapper or red tissue paper) so you don't lose your (or anyone else's) dark-sight adaption. The talk schedule for the coming term can be found at <http://www.ast.cam.ac.uk/IOA/public/0607timetable.html>

**This week's talk** : Dr Carolyn Crawford on *Why is Pluto no longer a planet?*

**Next week's talk** : We have a special **1-hour guest lecture**: Joel Primack and Nancy Abrams on *The View from the Center of the Universe: Discovering our Extraordinary Place in the Cosmos*. Cosmology is going through a scientific revolution that is creating humanity's first picture of the universe that might actually be true. This lecture explains and visualizes the evolution of the Universe, the fact that the universe is made mostly of dark matter and dark energy with visible matter making up only about half a percent of the total, and the remarkable fact that humans - and indeed intelligent life anywhere in the universe - must have a size that is in the middle of all possible size scales. Joel and Nancy alternate frequently during the presentation, presenting scientific and philosophical viewpoints. The talk is both entertaining and educational, and it can be enjoyed by everyone from people who know nothing about modern astronomy to experts in the field.

We still have a few places remaining on our **creative astronomy-inspired workshops** *Drawing on the Universe*, with the artist Issam Kourbaj at the Institute of Astronomy to celebrate *The Big Draw*. These are on Sunday 15th October (choose one of two possible sessions: 11am - 1pm or 2-4pm), and are open to everyone age 8+. The cost is £2 per adult, £1 per child. Please book your places through the IoA reception: 01223 - 337548 or [recept@ast.cam.ac.uk](mailto:recept@ast.cam.ac.uk)



## **Astronomical object of the week : The great globular cluster in Hercules (M13)**

Globular clusters are enormous aggregations of stars – up to 10,000 to 1 million in each cluster, all held close together by their mutual gravity. M13 is one of the brightest and largest such clusters visible to observers in the Northern Sky, and is easily visible through binoculars or a small telescope. The Hercules globular cluster was discovered in 1714 by Edmund Halley, and is thought to contain over 100,000 stars confined within a space measuring only about 150 light-years across.

**Website of the week** : Want to find out more about **Pluto**? Try <http://www.solarviews.com/eng/pluto.htm>

Some early evening **Iridium flares** will be visible from Cambridge in the next week:

Day	Time	Altitude	Direction
14 Oct	18:53:17	52°	S
14 Oct	18:54:42	52°	S
15 Oct	18:48:42	51°	S
16 Oct	18:42:38	50°	S

For more details (or to get exact times if you don't live in Cambridge) go to [www.heavens-above.com](http://www.heavens-above.com)

**Targets we intend observing tonight** (weather permitting!):

Wide angle camera (showing what can be seen in binoculars)

- The constellations of **Hercules**, **Delphinus** and **Cygnus**
- Collinder 399**; an open cluster of stars, whose brightest members take the shape of a coathanger!

Modern 14-inch (35 cm) telescope

- M13**; the great globular cluster in Hercules and this week's object of the week
- M92**; another globular cluster in Hercules
- M57**; the famous Ring nebula in Lyra, another planetary nebula
- Albireo**; a double star where the two stars have distinctly different colours of blue and yellow
- Eta Cassiopeia**; a double star where the two components again have very different colours of yellow and red
- Arcturus**; one of the brightest stars in the northern sky
- The Garnet star**; a red supergiant star that varies in brightness over a period of around 2 years

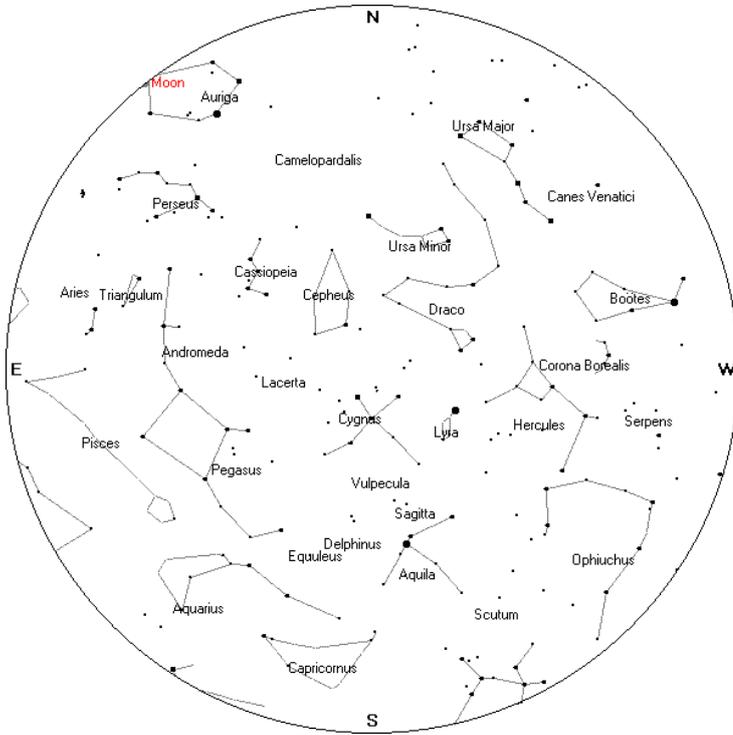
Modern 8-inch (20 cm) telescope

- **M13**; the globular cluster in Hercules
- **M27**; the Dumbbell, a planetary nebula
- **The North American nebula**; a cloud of glowing gas shaped like the continent
- **Vega**; another of the brightest stars in the northern sky

The historic 12-inch Northumberland and 8-inch Thorowgood telescopes

- **Collinder 399**; an open cluster of stars, whose brightest members take the shape of a coathanger!
- **M57**; the famous Ring nebula in Lyra, another planetary nebula
- **Albireo**; a double star where the two stars have distinctly different colours of blue and yellow
- **The Andromeda Galaxy**; the nearest Spiral galaxy to the Milky Way

**Chart of the night sky from Cambridge for 8pm on Wed 11<sup>th</sup> October** (taken from [www.heavens-above.com](http://www.heavens-above.com))



No planets are on view to the naked eye at this time of year, although the moon will be rising about 8pm.

The *summer triangle* (imagine a right-angled triangle linking the brightest star in each of the constellations of Cygnus, Aquila and Lyra) is still visible in the sky, but now setting towards the West.

The autumn constellations of Andromeda and Pegasus are easily visible now.

And finally, a **site map** to help you find your way back to the car in the dark!

Alternative parking here

Public observing happens here

Enter the IoA here for the talk

You have probably parked here

--- suggested route back to the car park

