

# PUBLIC OPEN EVENINGS AT THE INSTITUTE OF ASTRONOMY

## WEDNESDAY 4<sup>TH</sup> FEBRUARY 2009

Institute of Astronomy

<http://www.ast.cam.ac.uk>

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

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Welcome to our Wednesday public open evenings. Tonight's 30 minute talk starts at 7.15pm and is followed by an opportunity to observe with both modern and historical telescopes *if* the weather is clear. So now I'm just waiting for clouds to roll in and obscure this afternoon's clear skies, followed rapidly by mist, rain, sleet, snow, or hail, as is customary for a Wednesday .... \*sigh\*

**This week's talk :** Mark Booth is taking us to **The Solar System beyond Neptune**

**Next week :** Scott Brown will be **Mapping the Milky Way**

The schedule for this term's talks can be found at:

[http://www.ast.cam.ac.uk/public/public\\_observing/0809/timetable.html](http://www.ast.cam.ac.uk/public/public_observing/0809/timetable.html)

**Venus** continues to shine brighter and brighter in the twilight sky, and is difficult to miss in the south-west before 7.30pm. It'll continue to brighten until February 19<sup>th</sup>, as it's moving closer to the Earth at the moment. This means it's brighter, not just because it's closer, but also because the planet's disk subtends a slightly larger angle in the sky - a change that is imperceptible to the unaided eye, but still contributes to the increase in flux. At the end of the month, Venus will be swinging around and back towards the sun, and will dim as it gradually turns its sunlit side away from us.

**Saturn**, meanwhile, will be visible towards the east after around 10pm.

The **Moon** will be bright, and just past half-full, dominating the night sky.

### Getting closer to Earth-like planets

Yesterday astronomers announced the discovery of the smallest rocky planet yet found orbiting around another sun-like star. It's only about twice the size of Earth - most of the 'exo-planets' discovered so far are gas giants more like the size of Jupiter. CoRoT-Exo-7b (as the new planet is so romantically named) swings round its host star in a 'year' of only 20 hours, which means it's a lot nearer to the centre of its solar system than the Earth is to the Sun. This means it's probably a lot hotter, and scientists have speculated that its surface temperature could reach 1500°C. It was discovered using the CoRoT satellite, which is a small telescope in space that watches for the regular dimming of nearby stars that trace the passage of the planet across the disk of the star, called a transit.

Meanwhile, I've enjoyed exploring the surface of **Mars with Google** (<http://www.google.com/mars/>). Choose between images that show the height of surface features, or optical and infrared views, and zoom around the planet. The programme can point out a myriad of surface features, such as mountains, canyons, dunes, craters, ridges, as well as showing you the location of a variety of landers that reached the planet - or in the case of *Beagle 2*, I assume they're showing you the *intended* landing/crash site. There's also a 3-D fly-through movie of Valles Marineris made using the data, which you can access by clicking on the 'about Google Mars' tab. Okay, so it hasn't the resolution and hence detail we see in the fantastic photos available from *Mars Reconnaissance Orbiter*, but one hopes there are plans to add these later.



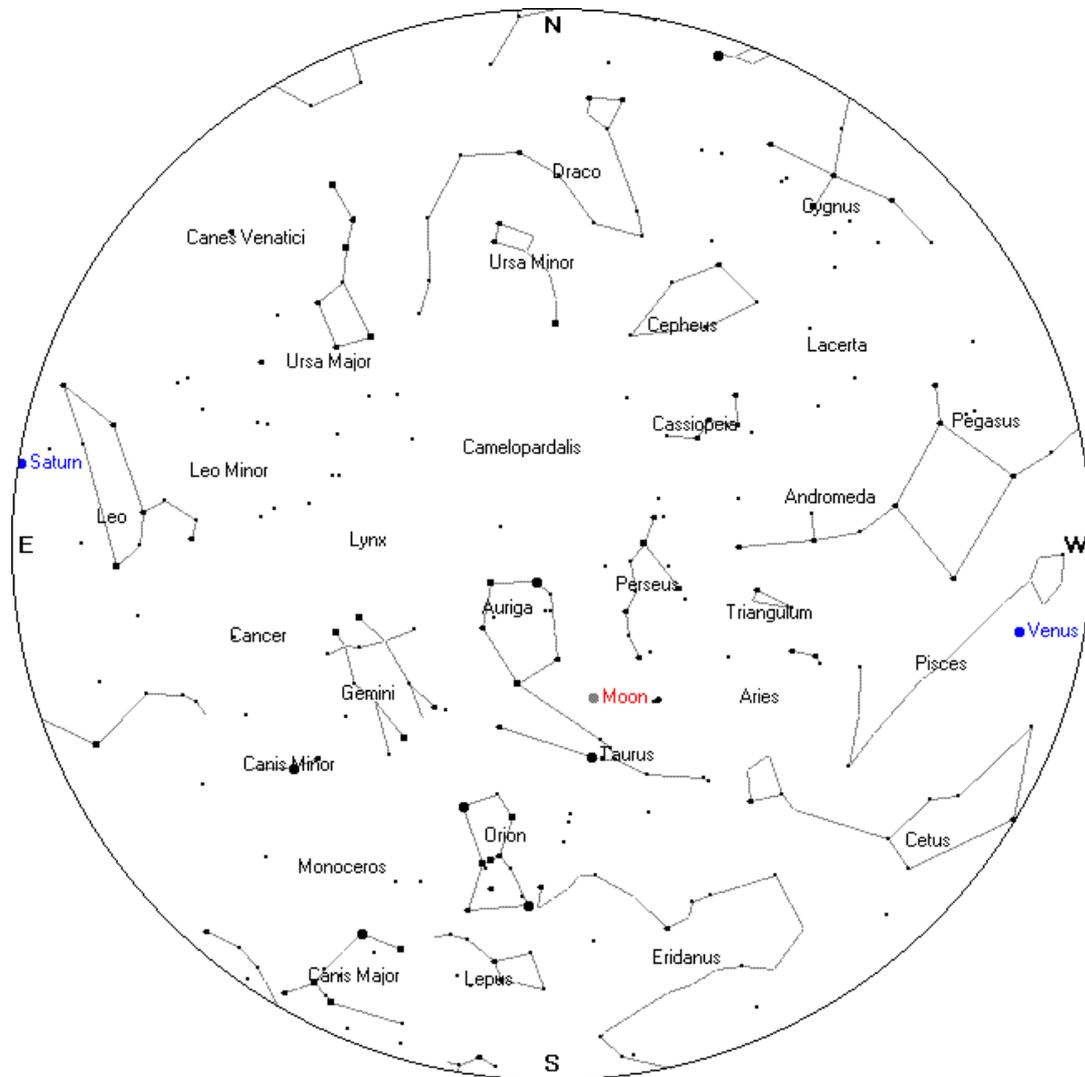
February's edition of the **Astropod** is out tomorrow, February 5<sup>th</sup>. If you've not caught it yet, the Astropod is a monthly podcast written and produced by a group of the graduate students here at the Institute of Astronomy. This month they're interviewing Don Pollaco about discovering extra-solar planets, so tune in and have a listen!

**SITE SAFETY** As if we weren't having enough fun with too much weather, the construction work for the new Kavli Institute for Cosmology is beginning to encroach on the accessibility of the telescopes. So if we're observing (ha) then I'm afraid access to the observing will be across the gravel car park. So please be safe, and follow directions and instructions as the usual path by the domes is completely blocked. Apologies about this, but I'm told it shouldn't be for too many weeks. But do please ask any of the front-of-house staff if you need further orientation or assistance. **Please also take care on all routes - we have salted and gritted the route, but be aware that that fresh ice may form during the evening as temperatures drop. Please also be careful of ice in the car parks.**

## THE NIGHT SKY AT 8PM ON 4<sup>TH</sup> FEBRUARY 2009

To use the map, hold it above your head to match the sky...

Sky map courtesy of <http://www.heavens-above.com/>



The CAA guys have been working hard on installing a new **all-sky camera**, which monitors the sky from the roof of the historical observatory building. Have a look at it on <http://tel05.ast.cam.ac.uk/> to see the live view, or run the movies from the last couple of nights to get sped-up views showing the cloud boiling around, stars wheeling around the sky, plane and satellite trails, and then more cloud scudding in from the west.

### What happens when poets and astronomers meet?

The Institute of Astronomy is hosting a special evening to celebrate the recent publication of a book called *Dark Matter : the poetry of space* on **Thursday 5<sup>th</sup> February**. Astronomers Jocelyn Bell Burnell and Paul Murdin will be in conversation with the poets James Fenton and Maurice Riordan; there will also be readings from the book. The event will be chaired by the Director of the Gulbenkian Foundation's art programme, Sian Ede. The event begins promptly at **7pm** and the main entrance doors will be open by 6.45pm. Entrance is free, and seating will be on a first-come, first-served basis.

It is particularly apt that this event is held at the Institute of Astronomy, as for this was for many years the workplace of Becky Elson, a talented astronomer *and* poet. If you're interested in where science meets art, you could always check out her collected writings *A responsibility to awe* published by Oxford Poets.

