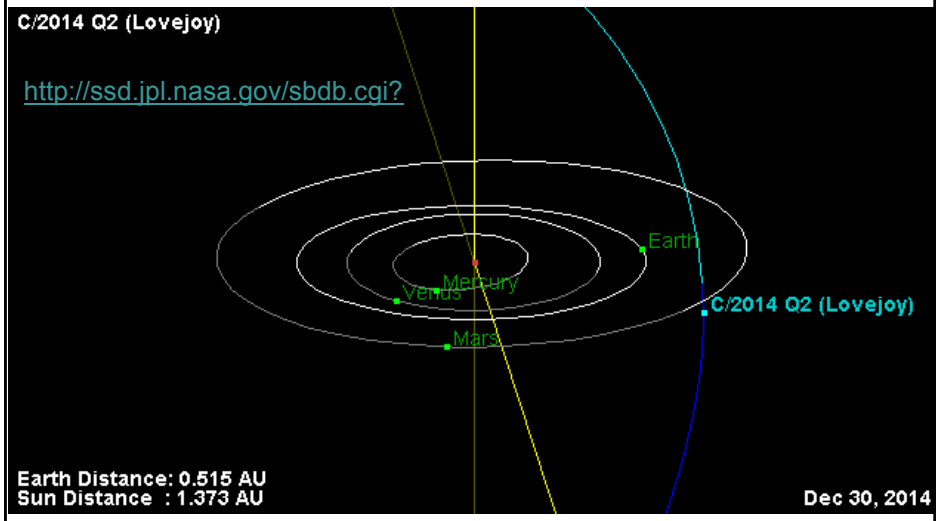
The January Sky

For Your Eyes Only

On the morning of January 15th, before sunrise if you look to the southwest, you'll see a beautiful pairing: the crescent Moon within 1 degree (two lunar diameters) of Saturn. The Moon is 4,000 times brighter, but only because it is also 4,000 times closer to the Earth and 10 times closer to the Sun than Saturn. In a small telescope you'll see the rings a little more open than last year, with a maximum occurring in 2017.

For Your Binoculars



As 2015 opens, there is a relatively bright comet visible after sunset. Discovered by Terry Lovejoy last August, it was last near the Sun 11,500 years ago and will return in another 8,000. This month's all sky chart shows the location of comet Lovejoy in January. It should be faintly visible to the naked eye from a dark site for at least the first half of January. A pair of binoculars or a small telescope will certainly show its coma, if you know where to look. The above diagram shows the comet's nearly perpendicular path through the inner solar system.

You will find an all-sky finder chart for this month at our web site.

UK MacAdam STUDENT OBSERVATORY

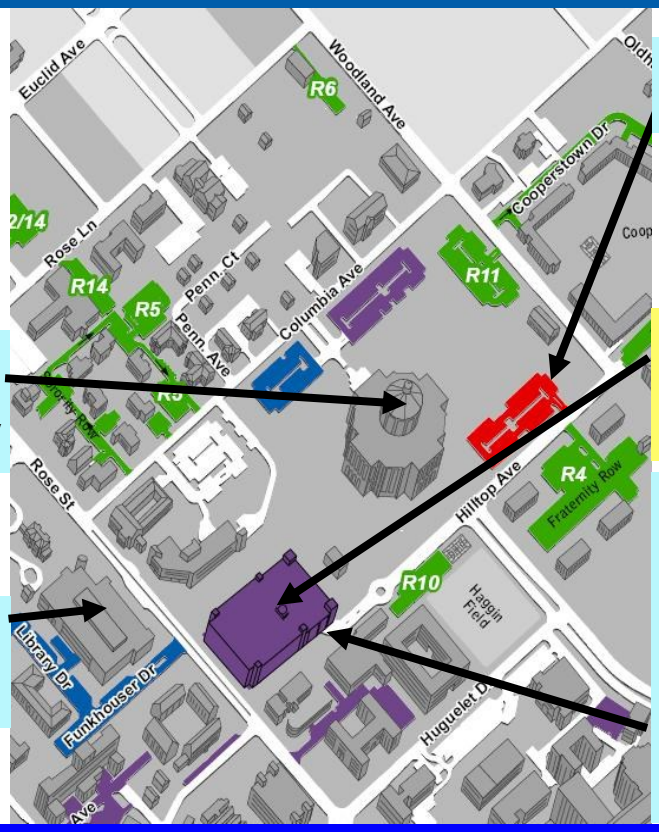
UK's MacAdam Student Observatory, designed and built in 2007, was officially opened in 2008. The Observatory is located atop Parking Structure #2 between the W.T. Young Library and the Chemistry-Physics Building, and its dome houses a high-quality 20-inch reflecting telescope plus a variety of state-of-the-art optical instruments. The Observatory is dedicated to serving UK students as well as astronomy enthusiasts of every age and experience level throughout Kentucky.

Are you interested in informal talks on astronomy and astrophysics? Are you curious about telescope design and operation? Would you care to take a look through the eyepiece?

The Department of Physics & Astronomy in UK's College of Arts & Sciences welcomes you! Join us to experience the excitement of stargazing through a powerful telescope. An up-to-date calendar of events can be found on our website:

https://pa.as.uky.edu/observatory

How to find the MacAdam Student Observatory



Alternative Parking

W.T. Young Library

MacAdam Student Observatory

SkyTalk Event Parking

Parking Structure #2 is accessible by car from Hilltop Avenue only.

Chemistry/ Physics Building

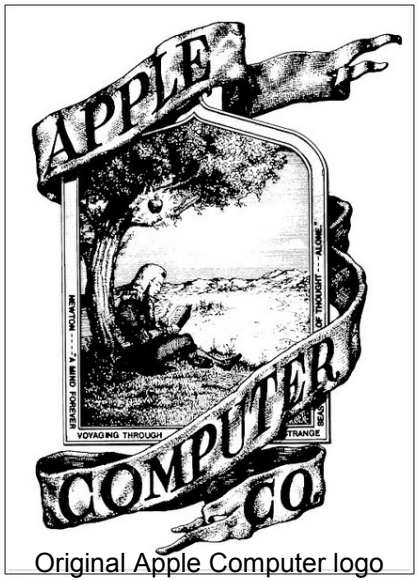
Monthly Meetings

The MSO hosts monthly public-observing sessions, each with a kick-off 40 minute presentation in the Chemistry-Physics Building. The presentations will take place even on cloudy nights. If the sky is clear, the observatory will open after the talk! Can't make the SkyTalk? Then come after!

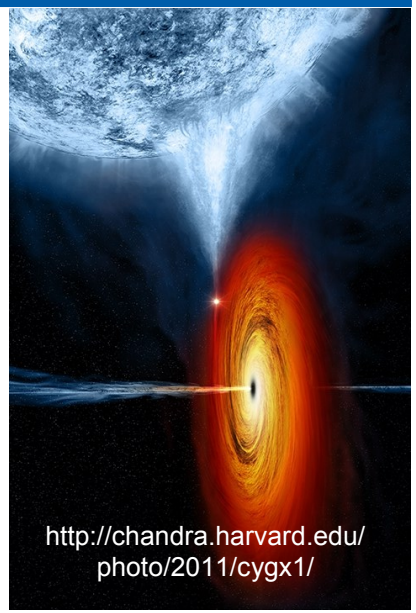
Next month:

February 12, 2015 - **7:00 PM** - Chem-Phys **Room 155**

Kentucky SkyTalk



Original Apple Computer logo



http://chandra.harvard.edu/photo/2011/cygx1/

Tim Knauer - University of Kentucky

Thursday - January 8, 2015 7:00 PM

Chemistry-Physics Building Room 155

A History of Gravity: An Attractive Theory for 300 Years

Isaac Newton proposed Universal Gravitation in 1687, when the *Principia Mathematica* was published. The notion that stars, planets and apples followed the same rules everywhere was, and remains, a novel idea. Newton's theory was sufficient until the middle of the 19th century when improved technology exposed inconsistencies. In 1915, Einstein advanced a theory that extended Newton's ideas of gravity. Since then, the most exquisitely subtle experiments have been performed to test Newton and Einstein. To the current limits of precision, these theories have been confirmed. But are they complete?

Tonight's *Kentucky SkyTalk* is part of an ongoing series. These are presented by the UK Department of Physics and Astronomy, and the MacAdam Student Observatory. Held the 2nd Thursday of every month, they are always free and open to the public.