

The July Sky

For Your Eyes Only:

The only naked eye planets after dusk this month are Saturn and Mars, seen in the southwest. Both are fading into the distance as the Earth passed them in our smaller, faster orbit, some months ago. In a small telescope, you might even see Saturn's shadow on its rings now that the Sun, Earth, and Saturn are no longer in a [syzygy](#).

For Your Binoculars

The September sky is known for its [summer triangle](#) of stars. And while the southern sky holds many of the outstanding showpieces of the Milky Way, the northern hemisphere is privileged to have the three brightest globular clusters visible from Earth. They are numbers 3, 5, and 13 in [Messier's catalog](#) and form a nearly perfect equilateral triangle in mid-July after sunset.

The [keystone asterism in Hercules](#) makes a convenient marker to find M13, the brightest of the trio. Discovered by Edmond Halley in 1714 but not catalogued by Messier for another half-century, it is a crown jewel of the northern skies. With binoculars, you may find that it resembles a celestial cotton ball. In that cotton ball though, is the combined light of 300,000 stars: more than one for every person in Lexington, (I have dibs on the little red dwarf in the far north).

If the distribution of globular clusters around the Milky Way is spherical, and we are at the center of the Milky Way, we would observe globulars in about the same numbers in all directions. The former is true, but not the latter. We are offset from the center of the Galaxy by about 28,000 light-years, a discovery by Harlow Shapley that, once again, displaced humanity from the center of the universe.

You can find an [all-sky finder chart](#) that highlights the binocular objects for July at our web site:

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

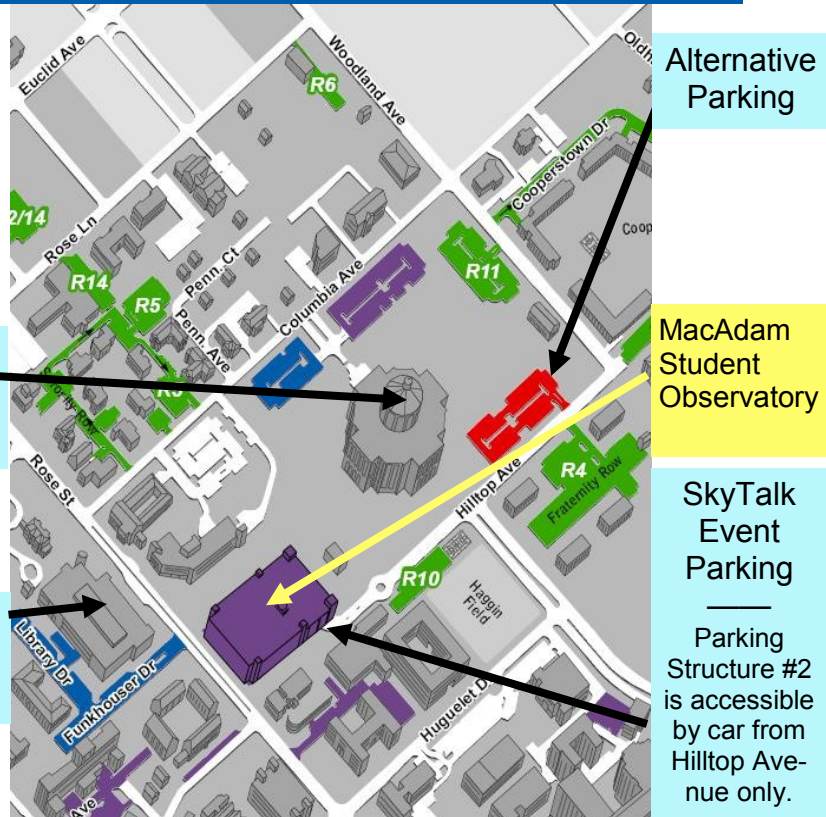
Are you interested in informal talks on astronomy and astrophysics? Are you curious about telescope design and operation? Would you care to take a look through the eyepiece?

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



W.T.
Young
Library

Chemistry/
Physics
Building

Alternative
Parking

MacAdam
Student
Observatory

SkyTalk
Event
Parking

Parking
Structure #2
is accessible
by car from
Hilltop Ave-
nue only.

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:

Gururaj Wagle—University of Kentucky
August 9, 2012 - 8 PM - Chem-Phys Room 155
Eclipses: Superstition to Fascination

Kentucky SkyTalk



CW from upper left:
Messenger, Curiosity, LRO, Cassini, DAWN, Voyager 2

Furea Kiuchi—[University of Kentucky](#)

Thursday - July 12, 2012 8PM

Chemistry-Physics Building Room 155

Exploring the Solar System with Robots

What is beyond Earth and beyond the edge of the Solar System? How many probes are flying in the Solar System? Where are they flying to? It has been over fifty years since the first probe, Sputnik 1, was launched by the former Soviet Union, which started the Space Race between USSR and the United States. Even though the Race virtually ended with the success of the Apollo 11 project, the space exploration continued. A lot has changed in the half century. Now some probes are traveling beyond the Solar System. We will talk about the history of space exploration as well as the current projects.

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 every 2nd Thursday of the month, they are always free and open to the public.