The September Sky

Summer and fall are the seasons for observing globular clusters. GC's are roughly spherical groupings of up to ten million stars. The Milky Way has about 200 of them. Globulars gave the first evidence that we do not live at the center of the galaxy. Imagine that Lexington street lights are globular clusters. If you live near the center of town, you see street lights equally distributed around you. But if you live outside Man-O-War drive, you would see far more lights in the direction of the center of town than you would when facing the other way. From this you might conclude that you did not live near the center of Lexington. This is what Harlow Shapley concluded from his studies of GC's in 1918, a century ago. From our location in the Milky Way, we see more GC's in the direction of the constellation Sagittarius which is the direction of the galactic center. At the speed of light, Man-o-War is about 27 microseconds from the center of town, whereas Earth is 28,000 light-years from the galactic center.

Come and see the night sky through many different telescopes at one of the Blue Grass Amateur Astronomy Club's outings at Raven Run. The remaining (Saturday) dates in 2017 are:

September 16 at 8:00 PM October 21 at 7:00 PM

Call **Raven Run** an hour before the event to verify that the weather will be sufficiently clear.

You will find an all-sky finder chart and the PDF of this flyer at our web site. A simulated view of the eclipsed sky can be found here.

UK MacAdam

STUDENT OBSERVATORY

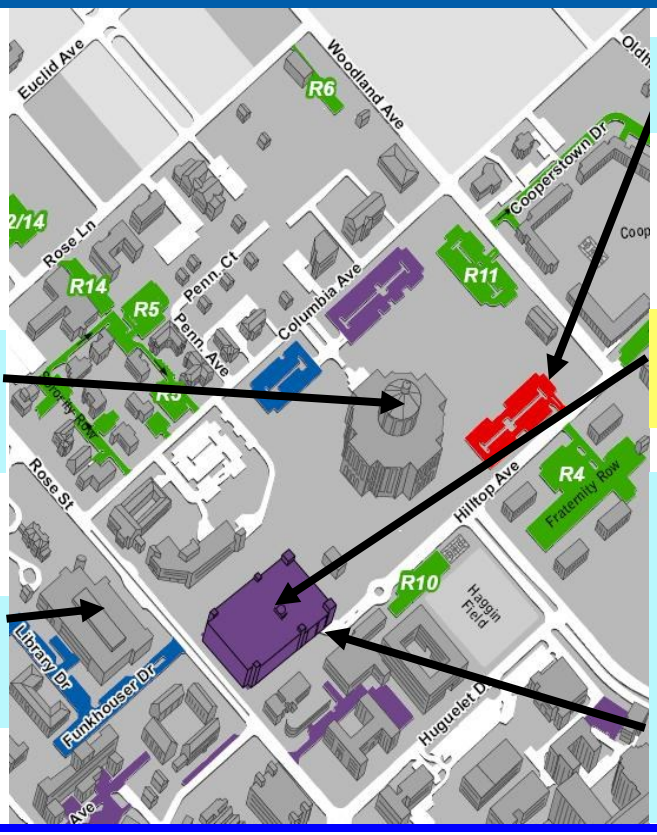
UK's MacAdam Student Observatory, designed and built in 2007, was officially opened in 2008. The Observatory is located atop Parking Structure #2 between the W.T. Young Library and the Chemistry-Physics Building, and its dome houses a high-quality 20-inch reflecting telescope plus a variety of state-of-the-art 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

Chemistry/ Physics Building

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!

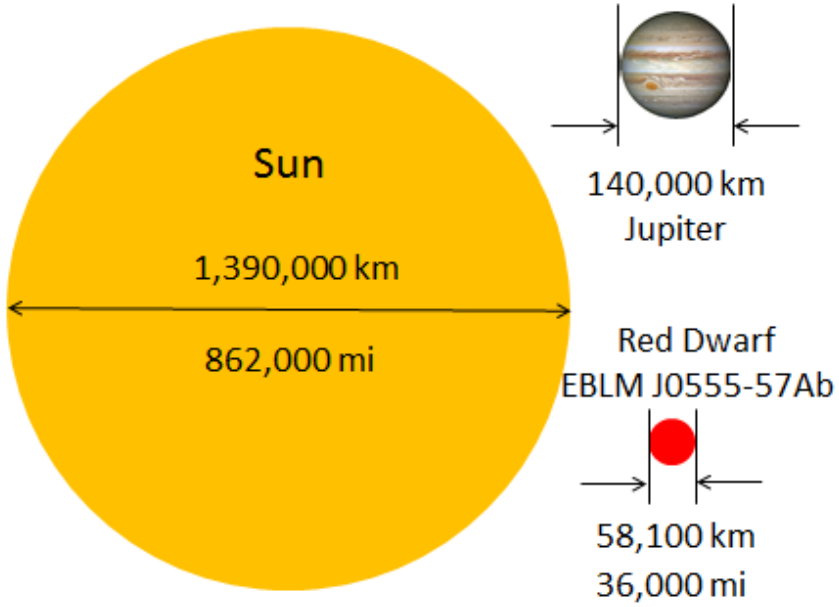
Next month:

Tim Knauer

October 12, 2017 - **7:00 PM** - Chem-Phys Room 155

From Sputnik to SpaceX

Kentucky SkyTalk



Angela Collier — University of Kentucky
Thursday - September 14, 2017 8:00 PM
Chemistry-Physics Building Room 155

The Smallest Stars

Astronomers often boast about the superlative objects in the Universe, (most massive black hole, largest stellar system, furthest object detected…etc), but what about objects on the other end of the spectrum?

The smallest star ever recorded (about the size of Saturn) has recently been discovered. **EBLM J0555-57Ab** is located 600 light-years away from the Sun in our Milky Way galaxy. This star is probably right on the limit of how small stars can be, with just enough mass to fuse hydrogen. This talk will discuss why the limit on stellar mass exists and how we can observe these tiny objects.

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 every month, they are always free and open to the public.