

## The April Sky

The brightest star in the constellation Leo is Regulus. Regulus is a triple star system. The brightest component is a blue sub-giant, much [larger and brighter](#) than the Sun, a G2 star. We know how bright it really is, because we know the distance to Regulus is 80 [light-years](#). Almost all of the stars you can see with your eyes alone are within ~1,000 light-years of the solar system. The only direct measure we have of the distance to a star is its [parallax](#). The first convincing measurement of stellar parallax was done by Friedrich Bessel in 1838. In 1997, ESA's [HIPPARCOS](#) satellite provided accurate distances to 100,000 stars. At the end of this month, ESA will release a dataset from its [GAIA](#) satellite that will give the distances, temperatures, and apparent motions for more than a *billion* stars. The data will be available to anyone with an internet connection.

Because its location in the sky is near the [ecliptic](#), it can be occulted by solar system objects like the [Moon](#), other planets, even asteroids. For example, the next occultation of Regulus by any planet (in this case, Venus) will be in the year [2044](#). Alas, it will not be visible from Lexington.

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Come and see the night sky through many different telescopes at the [Blue Grass Amateur Astronomy Club's](#) outings at Raven Run. The remaining (Saturday) dates in 2018 are:

April 14, May 12, June 9, July 14, August 11, September 8, October 6, and, November 3.

Call [Raven Run](#) an hour before sunset 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](#).



The logo for the UK MacAdam Student Observatory. It features the letters 'UK' in a large, blue, serif font. To the right of 'UK' is a stylized graphic of a telescope dome with a red and white striped top. Further right, the word 'MacAdam' is written in a blue, sans-serif font. Below 'MacAdam' is a horizontal red line. Underneath the red line, the words 'STUDENT OBSERVATORY' are written in a bold, black, sans-serif font.

## 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.

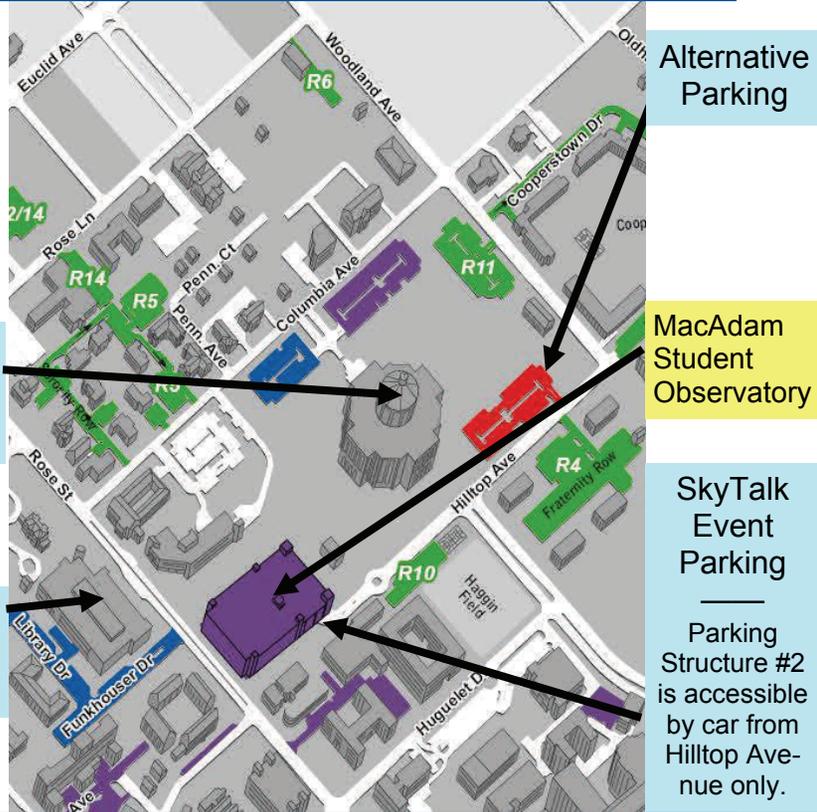
Are you interested in informal talks on astronomy and astrophysics? Are you curious about telescope design and operation? Would you care to take a look through the eyepiece?

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



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!

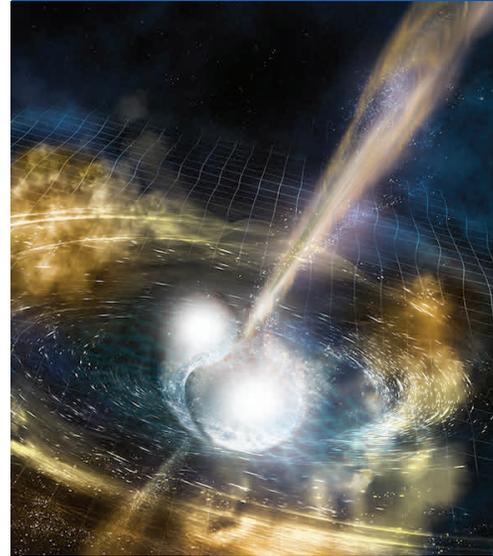
Next month:

Dr. Renbin Yan

May 10, 2018 - **8:00 PM** - Chem-Phys Room 155

***The Daily Drama on the Sun***

## Kentucky SkyTalk



Credit: NSF/LIGO/Sonoma  
State University  
A. Simonnet

**Dr. Tom Troland— University of Kentucky**  
**Thursday - April 12, 2018 8:00 PM**  
**Chemistry-Physics Building Room 155**  
***When Neutron Stars Collide***

A very long time ago in a galaxy far, far away, two massive stars were born. The life cycles and eventual fates of this stellar pair led very recently to an extraordinary astronomical discovery. The discovery not only relates to Einstein's theory of relativity. It may also explain where the gold came from in your ring or other piece of jewelry. Tonight we will explore this story, a story that has unfolded over most of the life of the universe, and a story that speaks to the extraordinary ingenuity of the human race.

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 2<sup>nd</sup> Thursday of the month, they are always free and open to the public.