The July Sky

The constellation Corona Borealis (the northern crown) is near the zenith after darkness falls on July evenings in Kentucky. Located within the crown, is a rare and very old, variable star: R Corona Borealis. Most variable stars change their luminosities with some regularity, whereas R CrB varies its luminosity unpredictably. It's a large star, and would fill half of Earth's orbit. Counterintuitively, while less than the Sun's mass, the star is at least 10,000 times brighter.

R CrB is a star near the end of its life, possibly the result of the merger of two even lower mass stars. As seen from Earth, it is nominally at the very limit of human vision, and the brightest star in the crown asterism of Corona Borealis. Periodically and at irregular intervals, the star's apparent brightness plunges, as much as a factor of 1,000 in a few days. The mechanism seems to be puffs of carbon dust emitted by the star that condense in a cloud that hides the star from our view. In a deep minimum, it will drop from view in a pair of binoculars. Can you see it tonight?

You can construct a light curve of R CrB from the year 2000 to the present by following this link. You can find a R CrB magnitude chart here. The numbers next to each star are its stellar magnitude with the decimal missing. That is, the "590" next to R CrB means that its nominal magnitude is 5.90. Larger magnitudes indicate dimmer stars.

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:

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.

Kentucky SkyTalk

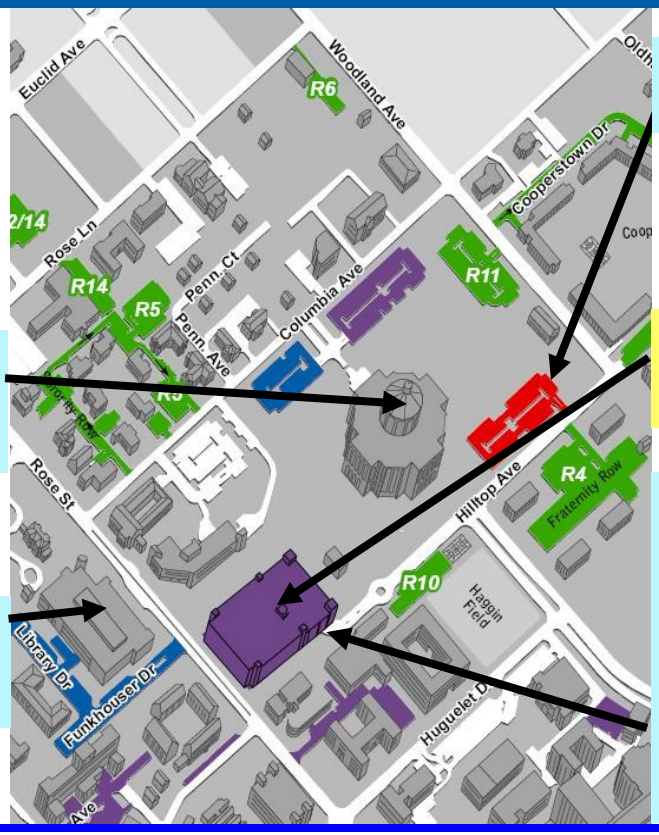
UK's MacAdam Student Observatory, designed and built in 2007, was officially opened in 2008. The Observatory is located atop Parking Structure #2 between the W.T. Young Library and the Chemistry-Physics Building, and its dome houses a high-quality 20-inch reflecting telescope plus a variety of state-of-the-art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

Chemistry/ Physics Building

SkyTalk Event Parking

Parking Structure #2 is accessible by car from Hilltop Avenue 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!

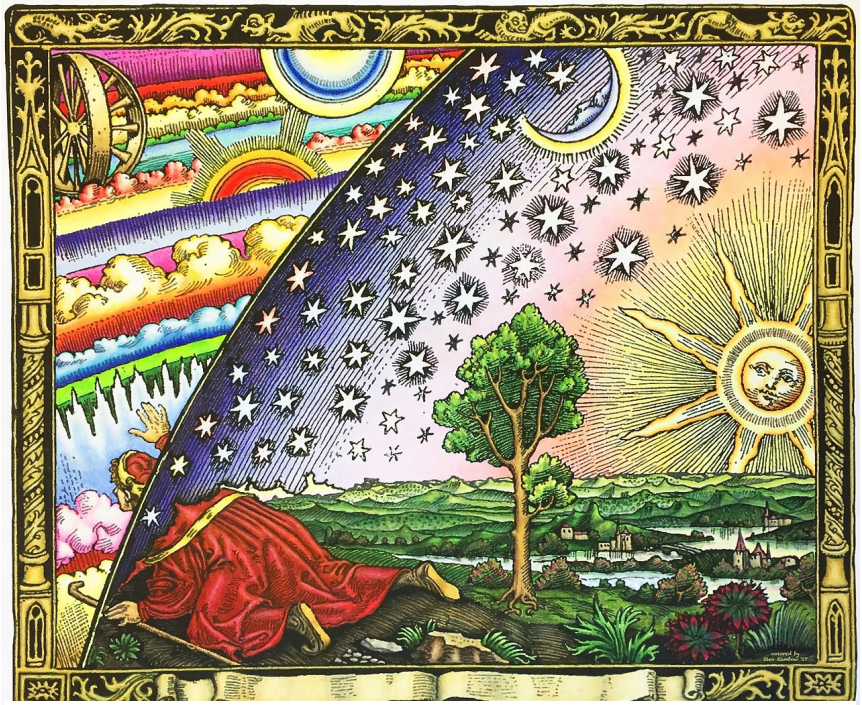
Next month:

Angela Collier

August 9, 2018 - **8:00 PM** - Chem-Phys Room 155

So you want to be an astronomer?

Kentucky SkyTalk



Colorized version of a print from Camille Flammarion's:
The Atmosphere, Popular Meteorology Image: Houston Physicist

Tim Knauer — University of Kentucky

Thursday - July 12, 2018 8:00 PM

Chemistry-Physics Building Room 155

Wanted: *A Planet With a View*

The Earth is in a "Goldilocks" environment: not too far or too close to the Sun. The Sun itself is in a bubble of space nearly devoid of obscuring galactic gas and dust. There are many places that would offer a completely different view of the universe. There are places where we would not choose to live, places where we could not survive.

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.