# The March Sky

The twin sons of different fathers, Castor and Pollux, are the brightest stars (as seen from Earth) in the constellation Gemini. The double circle in this map of Gemini designates Castor as a multiple star. In almost any telescope Castor can be seen to be a double star. There are lots of double stars in the galaxy. If you ignore the innumerable red dwarf stars, then double star systems outnumber single stars like the Sun.

Spectroscopic analysis of each of the three stars of Castor reveal another surprise: each one is also a double star too close together to be seen separately. In mythology, as Castor was dying, Pollux asked Zeus to give his brother half of his immortality. If Pollux was worried about being alone, he need-n't have worried. in 2006, a planet with a mass of 2.3 times the mass of Jupiter is in orbit around Pollux.

The more mass a star has at birth, the shorter is its life. A star like the Sun will burn hydrogen into helium for 10,000 million years, glowing with a more-or-less constant energy output. While Pollux is only twice the mass of the Sun, at an age of only 700 million years, it is already finished the primary fusing of H→He and has expanded into a giant star, on its way to becoming a White Dwarf.

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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 (Saturday) dates in 2018 are:

March 17, April 14, May 12, June 9, July 14, August 11, September 8, October 6, 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.

UK MacAdam

STUDENT OBSERVATORY

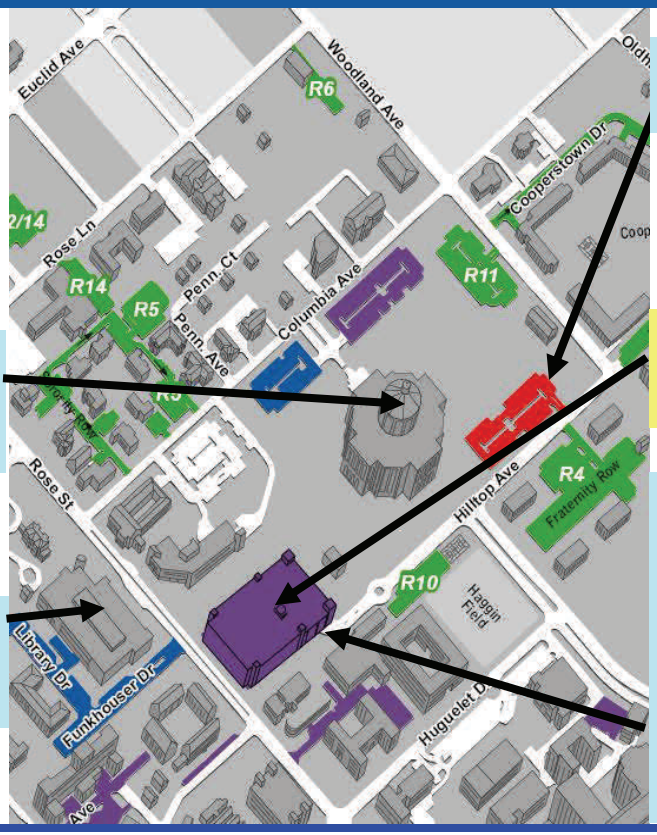
UK's MacAdam Student Observatory, designed and built in 2007, was officially opened in 2008. The Observatory is located atop Parking Structure #2 between the W.T. Young Library and the Chemistry-Physics Building, and its dome houses a high-quality 20-inch reflecting telescope plus a variety of state-of-the-art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




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

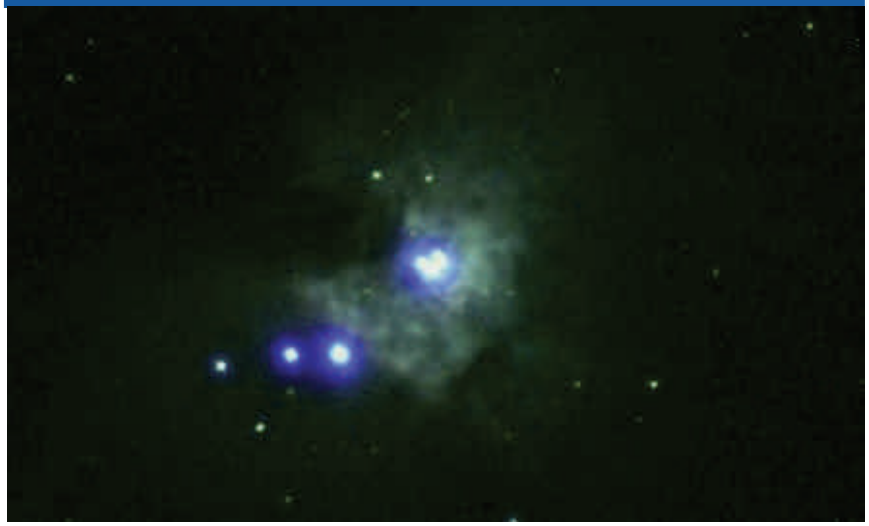
## Monthly Meetings

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:

April 12, 2018 - **7:00 PM** - Chem-Phys Room 155

# Kentucky SkyTalk



**Amber Moore— University of Kentucky**

**Thursday - March 8, 2018 7:00 PM**

**Chemistry-Physics Building Room 155**

## *A Journey to Orion*

Most of the visible matter in the universe is in the form of stars. Star formation is one of the most important processes in the universe and for the last century, the basics of star formation has been understood to be the result of gravitational collapse of interstellar clouds. This talk will explore the very basics of star formation while taking a journey toward one of the most well studied objects in the sky, the Orion Nebula. The Orion Nebula, or Messier 42 (M42), is the nearest high mass star formation region to Earth and serves as a great laboratory for studying the interactions between the high mass stars in the region and the interstellar medium (ISM) around them. By studying these interactions we can gain a better understanding of the evolution of the stars. By the end of the talk we will have answers to questions such as: "What is a star?"; "What lies in the space between stars?", and "What is so interesting about the Orion Nebula?"

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.