

## The January Sky

The nearest star-forming region to Earth is the Orion Nebula, or M42. Some few millions of years ago three [stars escaped their birthplace](#) and are now speeding away at 100 km/s. We currently see them in the direction of the constellations [Aries](#), [Auriga](#), and [Columba](#). All three are easily found in binoculars, although  $\mu$ -Columbae never gets higher than  $20^\circ$  above the horizon as seen from Lexington. All three are massive, hot stars that will likely end their lives as supernovae. Since massive stars like these, (10-20 times the mass of the Sun), live only brief lives (~10 million years, as opposed to the Sun's 10,000 million years), they are almost always found in or near the place where they were formed; these runaway stars are an exception. The way in which they found their freedom, may involve some fancy gravitational billiards, or perhaps companions that previously went supernova.

The evening sky is bereft of bright planets this month. Venus is too near the Sun, but is visible in [one](#) of the [two](#) wide-field instruments of the SOHO satellite. Both Jupiter and Mars are in the southeast before dawn, Jupiter being the brighter of the two. After mid-month, Mars is seen with the stars of the Milky Way as a backdrop. Binoculars will show an orange tinted Mars and dozens of bright stars in the same field of view.

You will find an [all-sky finder chart](#) for January 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.

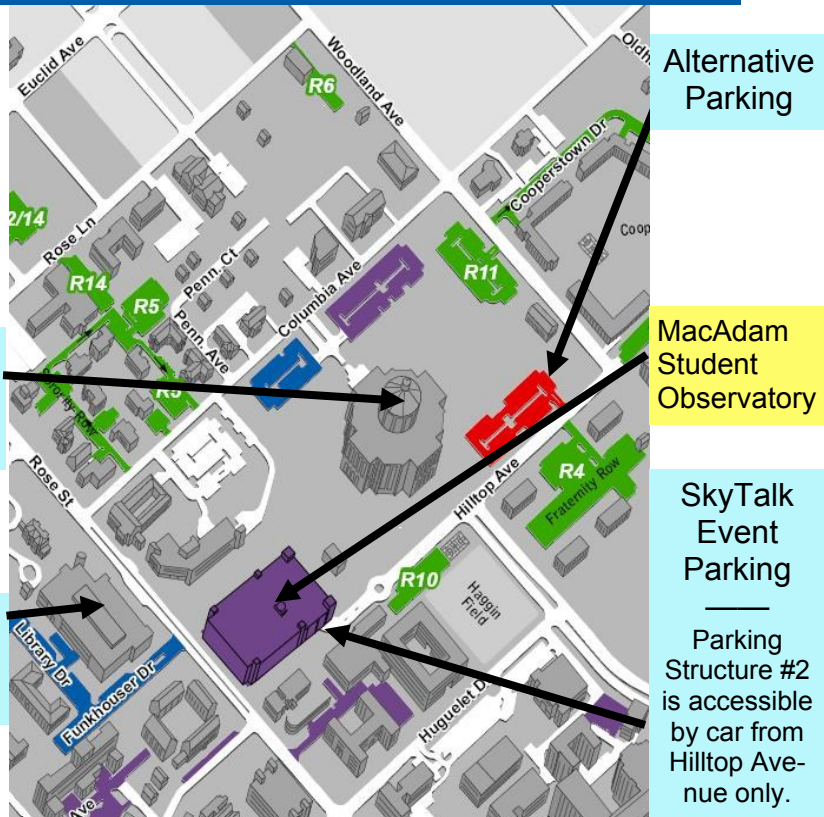
Are you interested in informal talks on astronomy and astrophysics? Are you curious about telescope design and operation? Would you care to take a look through the eyepiece?

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



### 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:

February 8, 2018 - **7:00 PM** - Chem-Phys Room 155

## Kentucky SkyTalk



Salvador Dalí  
*Persistence of Memory*

**Tim Knauer— University of Kentucky**  
**Thursday - January 11, 2018 7:00 PM**  
**Chemistry-Physics Building Room 155**

### *Clocks and Calendars*

The measurement of time has always depended on our understanding of nature. Within a single human lifetime, we have gone from using the rotation of the Earth to fountains of falling atoms to measure time. How convenient it would be if there were exactly, say, 360 days in a year instead of 365.242189 days. How simple, and boring, the calendar would be with 30 days in every month.

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.