The April Sky

Our galaxy consists of ~100 billion stars, lots of gas and dust to form new stars, and the mass of a <u>million-million</u> <u>Suns</u>. When star formation occurs in our epoch, stars are created in bunches called *open clusters*. A typical OC has a few hundred or thousand stars. They are all formed at nearly the same time, and so are the same age. On a timescale of ~a few 100 million years, cluster members tend to drift apart as siblings sometimes do.

This month, in the constellation Cancer, we highlight two clusters, one very old (M67) and one merely mature (M44). M67 is the unusually old age of ~4 billion years: a Methuselah of open clusters, though the stars of M67 are aged 4 million years for every year of the genesium character.

M44 is faintly visible to the naked eye under dark and clear skies. Ancient Greeks used the visibility of M44 to predict the weather. If it was invisible in an otherwise clear sky, bad weather was expected. A small amount of dust or thin clouds obscures its visibility. M44 is only one degree from the ecliptic plane of the solar system, so the <u>Sun</u>, <u>Moon</u> and planets are frequently seen nearby. In June, 1991, <u>Mars, Venus, and Jupiter formed a tight triangle near M44</u>.

Come and see the night sky through many different telescopes at the <u>Blue Grass Amateur Astronomy Club</u>'s outings at Raven Run. The (Saturday) dates in 2019 are:

Apr 6, May 4, Jun 29, Jul 27, Aug 31, Sep 28, Oct 26

Call <u>Raven Run</u> an hour before sunset to verify that the weather will be sufficiently clear. You will find an <u>all-sky</u> <u>finder chart</u> for this month at <u>our web site</u>.



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





Monthly Meetings

The MSO hosts monthly public-observing sessions, each with a kick-off 45 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:

Da Bi—University of Kentucky May 9, 2019 - 8:00 PM

UKAA Auditorium—William T Young Library

Kentucky SkyTalk



Path of Totality 29-May-1919

Dr. Ron Wilhelm — <u>University of Kentucky</u> Thursday - April 11, 2019 8:00 PM Jacobs Science Building—Room 221

Confirming Einstein: The 100th Anniversary of the Eddington Expedition

In 1915, Einstein, using his Theory of General Relativity, predicted that massive objects would bend light passing nearby. In the four years after this landmark prediction, Arthur Eddington was able to show that this effect does occur by making observations of star light passing near the Sun during the total solar eclipse of 1919. This May 29th is the 100 year anniversary of the Eddington confirmation.

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.