

The Night Sky

Venus Dominates the Evening Sky

The year 2020 is going to be a spectacular year for the planets as seen from earth. Jupiter and Saturn will experience a very close conjunction in May. Meanwhile Mars will have a “close encounter” on the sky with Jupiter and Saturn in March as it marches to a very close opposition with the earth on October 13th. It will truly be a remarkable year for viewing the planets in 2020.

Throughout January in 2020, our sister planet Venus shines very brightly in the southwest during the evening hours. The time between sunset and Venus-set increases from 2½ hours on January 1st to 3½ hours by the end of January. During the last week of January, people with an unobstructed view of the southwest horizon might be able to spot the innermost planet Mercury to the lower left of Venus hanging slightly above the horizon ½ hour after sunset. Also, during this time, a thin crescent moon moves between these 2 planets forming a very pretty sight.

We now have to wait to the predawn hours to spot our next naked-eye planet, that being the red planet Mars. Throughout January, Mars rises 3 hours before the sun as it moves through the constellations of Scorpius and Ophiuchus, hanging low in the southeast in the early morning. The two giant planets Jupiter and Saturn will be lost in the solar glare in January as they pass behind the sun.

The earth arrives at perihelion, the closest to the sun in space, at 2:47 a.m. EST on January 5th. The distance between the earth and sun continuously changes throughout the year due to the fact that, like all of the planets, orbit the sun in an elliptical orbit.

The moon will be at full phase at 2:21 a.m. EST on January 10th. Full moons in January are known as the “Full Wolf Moon” by Native Americans, primarily because wolf packs howled hungrily outside Indian villages.

The monthly astronomy open house at the ETSU Powell Observatory are on hiatus over the holiday season. They will return on February 1st, 2020. Further information about these open houses and directions to the observatory can be found on the web at <https://www.etsu.edu/cas/physics/observatory/default.php>.

For those of you who would rather explore the night sky indoors, the next planetarium show occurs on January 16th at 7:00 p.m. at the ETSU Planetarium in Hutcheson Hall. A location map of the Planetarium on the ETSU campus can be found on the web at <https://www.etsu.edu/cas/physics/outreach/planetarium.php>.

This month's Night Sky was written by Dr. Donald G. Luttermoser, Chair of the Department of Physics and Astronomy at ETSU. He can be reached at lutter@etsu.edu. Any students wishing to pursue a career in Physics or Astronomy are encouraged to contact him at this email address. Astronomy-related information for the public, including a link to the ETSU Powell Observatory, can be found at <http://www.etsu.edu/cas/physics/> by selecting the Public Outreach pull down menu at the top of this web page.