

The Night Sky

A Spectacular Planetary Conjunction this Month!

On the first day of March 2023, we are in store for a fantastic planetary conjunction between the two brightest planets in the night sky, Jupiter and Venus! On this day, brighter Venus will be just to the right of Jupiter above the western horizon in the evening sky, separated by only $\frac{1}{2}$ degree! All through February, we have been watching the separation between Venus and Jupiter get smaller and smaller. Jupiter has been losing altitude with respect to the western horizon as it approaches its conjunction with the Sun on April 11th. Meanwhile, Venus has been slowly climbing and moving northward as the days progress.

On March 22nd, 45 minutes after sunset, Jupiter will be sitting very low above the western horizon with a thinly crescent Moon just above and to the left of Jupiter. Use a pair of binoculars to help you spot this astronomical pair in the bright twilight.

Jupiter has its 2nd close conjunction on March 27th with our innermost planet, Mercury. Unfortunately, this pairing will only be $3\frac{1}{2}$ degrees above the western horizon $\frac{1}{2}$ hour after sunset, making it virtually impossible to spot, even with binoculars, unless you have an unobstructed western horizon and a very clear sky. By the end of the month, Jupiter will be lost in the solar glare and will not reappear, in the morning sky, until early May.

Mars sits nearly overhead in the evening sky in March as it moves from the constellation of Taurus into Gemini. Earth has been pulling away from Mars in their respective orbits for the past few months, causing Mars to continually dim. The red planet is still relatively bright, however, and should be easy to spot.

Saturn has reappeared from behind the Sun in the morning sky. On the morning of March 19th, the waning crescent Moon sits about 5 degrees below and to the right of the ringed planet. This conjunction sits very low above the eastern sky $\frac{1}{2}$ hour before sunrise, so use binoculars to spot this pair in the bright morning twilight.

Daylight Savings Time starts at 2 a.m. on Sunday, March 12. Make sure you “spring” your clocks forward by one hour before you go to bed on the 11th. A week and one day later on March 20th, spring begins at 5:24 p.m. EDT. At this time, the Sun is located on the vernal equinox on the celestial sphere and located in the sky directly over the Earth’s equator.

The March 2023 Full Moon will occur on the 7th at 7:40 a.m. EST. Native Americans often called March’s full Moon the Full Worm Moon. This is because of the earthworms that wriggle out of the ground as the earth begins to thaw in March.

The next astronomy open house at the ETSU observatory is scheduled on Saturday, March 25th from 8 to 10 pm. At these open houses, the public can view objects in the sky through telescopes and hear talks by faculty of the Physics and Astronomy Department. Make sure you dress warmly. Note that the open houses are cancelled if the sky is cloudy. 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/starparty.php>.

For those of you who would rather explore the night sky indoors, the February 2023 planetarium show will be on March 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> for further information.

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