

# The Night Sky

## Close Encounter of Saturn and the Moon

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The brightest planet in the night sky, Venus, is quickly gaining altitude in the evening sky after sunset. On November 4<sup>th</sup>, a thin waxing crescent Moon will be just to the lower left of Venus, making for a spectacular sight! Six days later on November 10<sup>th</sup>, the waxing gibbous Moon has a close conjunction with Saturn in the southern sky during the evening. From our location, these two celestial objects will be only 10 arcminutes apart from each other – an extremely close conjunction! The farther south you go, the closer the pairing. For observers in Miami, Florida, the Moon will actually cover Saturn!

On the morning of November 17<sup>th</sup>, the waning gibbous Moon (96% illuminated) will be just to the right of brilliant Jupiter in the constellation of Taurus. The King-of-the-Planets sits between the horns of the celestial bull during this month.

The Red Planet Mars continues its rapid motion across the celestial sphere and resides in the constellation of Cancer the Crab in November. Mars continues to brighten as it approaches opposition with the Earth in January 2025. The Moon sails past Mars on the mornings of the 20<sup>th</sup> and 21<sup>st</sup>.

Full Moon this upcoming month occurs on November 15<sup>th</sup> at 4:29 p.m. EST. The November full Moon is known as the Full Beaver Moon by native Americans. The Beaver Moon gets its name from the time of year when beavers are most active in preparing for winter. This full Moon marks the 4th “Supermoon” in a row! It is very rare to get 4 Supermoons in a row. A Supermoon is traditionally defined as a full Moon that occurs within 24 hours of the time of lunar perigee, the point in the Moon’s orbit that it is closest to Earth.

Daylight-Savings Time ends at 2 a.m. on November 3<sup>rd</sup>. Make sure you set your clocks to “fallback” before you go to bed on Saturday, November 2<sup>nd</sup>.

The ETSU Powell Observatory next astronomy open house will be on November 9<sup>th</sup> from 8 until 10 p.m. EDT. 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. Note that the open houses are cancelled if the sky is cloudy. The 2024-2025 schedule for our Astronomy open houses 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, a planetarium show will be presented on November 21<sup>th</sup> at 7:00 p.m. at the ETSU Planetarium in Hutcheson Hall. Please check the Planetarium web page at <https://www.etsu.edu/cas/physics/outreach/planetarium.php> for further information

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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](mailto: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 on the lower-left side of this web page.