The Night Sky

A "Complete" Planetary Alignment this Month

For most of the month, you will be able to view all of the planets in solar system in the early morning sky. I am including Earth here since you will be able to see all the planets sitting above the Earth's northeastern horizon. This grand alignment begins on June 4th, when some of you will be able to spot Mercury sitting very low in the northeastern sky 45 minutes before sunrise. Unfortunately, this isn't a very good morning apparition of Mercury, since it doesn't climb very high above the horizon this month.

The best viewing of our planetary alignment occurs between the dates of June 16th through June 27th. During this time period, starting from the northeastern horizon (Earth), we encounter Mercury. Continuing to the upper-right of Mercury, you will see brilliant Venus, followed by Uranus (with the aid of binoculars), Mars, Jupiter, Neptune (with the aid of large binoculars or a telescope), then Saturn. So that's all eight major planets in the solar system, including Earth since we are standing on it. We can also include one minor planet in this alignment, Vesta, which lies due east of Saturn. Like Uranus and Neptune, one will need binoculars or a small telescope to see Vesta in the constellation of Aquarius.

The Moon will join our planetary alignment on June 18th, when the waning giggous Moon hangs some 6 degrees below Saturn. As the days progress, the Moon flirts with each planet as it moves eastward on the night sky. On June 25th, a thin waning-crescent Moon lies to the upper-right of Venus, the next morning, sitting to the left of this brilliant planet. Finally, on June 27th, the crescent Moon sits to the lower-left of Mercury. It will be difficult to see this pairing on the 27th since it will occur in the bright morning twilight, so use binoculars to help spot the Moon with our innermost planet.

The Moon will be at full phase on June 14th at 7:51 a.m. EDT. Native Americans called the June Full Moon the "Full Strawberry Moon" since June marks strawberry harvesting season in North America. One week later, the Sun reaches the summer solstice at 5:14 a.m. EDT on June 21st, ushering in the summer season. On this date, the Sun sits over the Tropic of Cancer latitude line on the Earth, giving rise to the most daylight of the year for the Northern Hemisphere.

The ETSU Powell Observatory open houses are on hiatus for the summer. Later this summer, the schedule for our Astronomy open houses can be found on the web at https://www.etsu.edu/cas/physics/observatory/default.php.

Also, the ETSU Planetarium Shows are also on hiatus during the summer months. Please check the Planetarium web page at https://www.etsu.edu/cas/physics/outreach/planetarium.php for further information.

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