



The Astrophile Newsletter

One Fond of Starlore: An Amateur Astronomer

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Transit of Mercury on Nov 11

The smallest planet can be seen crossing in front of the disk of Sun next week from American nations, Europe and Middel East

The smallest planet Mercury, will transit the Sun in the Morning in the Northern and Southern Nations, in the afternoon in Europe, Evening in Africa and Middle East while only a part of Gujarat will see the transit ending with the Sun rise.

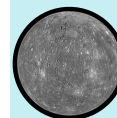
Mercury took about three and a half years to align with Sun since last time the transit was visible, while it re-visits it position every 88 days orbiting. The next transit will be visible only in the year 2032.

Transit is a kind of celestial alignment when a celestial body appears to pass a disk of another celestial body as seen from a point of observation. For us, only Venus is the other object which transits the Sun and next will be in the year 2117.

Moon phases and dates

Important phases and dates for Moon to plan your observation

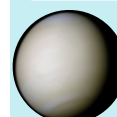
04/11/19	First Quarter	15:53
12/11/19	Full Moon	19:04
20/11/19	Third Quarter	02:40
26/11/19	New Moon	20:35



Mercury

Mercury will not be visible this month as it

will be placed very close to the Sun, transiting the disk as seen from Earth on November 11, 2019. The planet is not advised to be seen with telescopes.



Venus

Venus will reappear in the evening skies this

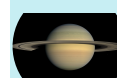
month and will be setting late as the month progresses. Venus will be resolved in a small telescope and the phases can be seen just like the Moon..



Jupiter

Jupiter will be visible in the evening skies due

west and will set by early evening. The planet is fading the twilight hours and soon will disappear from our skies for a few months.



Saturn

Saturn will be visible in the early part

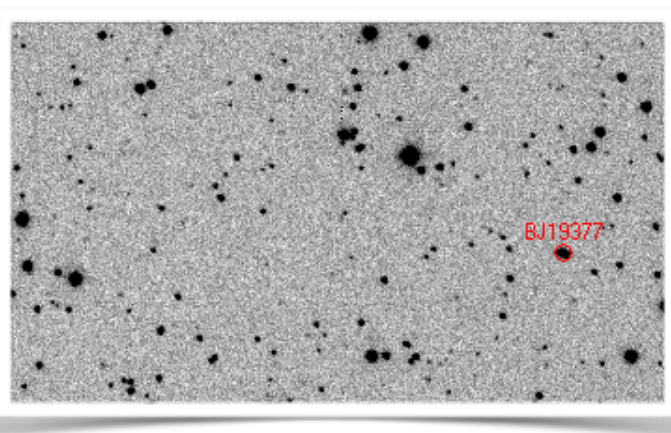
of the night, setting 2-3 hours after sunset and visible in South west in the evening hours. The rings of planet are visible and one can enjoy the soothing blue colour of the planet in an amateur telescope.

Leonids Meteor Shower with 70% Moon



Leonids Meteor Shower is an annual shower with its radiant appearing in the constellation Leo, rising after midnight in the month of November. The shower is associated with a periodic comet named “**Tempel-Tuttle**”, with an orbital period of 33 years, discovered in 902 AD. The comet had its peak last in the year 1996 and the next one is expected to be in the year 2029. One should expect up to 15 meteors per hour considering the local winter conditions in the northern hemisphere and a waning gibbous (70% disk) Moon illuminating the night sky. Many of the faint meteors are expected to be undetected to human eye due to local circumstances and Moon position.

Hunt for the unknown Asteroids this November



In order to promote science education at higher levels, and to introduce research based learning, Astrophile ES has collaborated with International research agencies to involve the students in several edu-research projects. One if them, **International Asteroid Search Campaign** is being organised from November 2- December. 17 2019.

The students will be hunting for the unknown asteroids in the solar system using real time data provided by various observatories and the successful discoveries will receive recognition and certification from the international agencies.

The participating students will receive training for the research work and will receive full support during the course of the program. For registering and more details for participation, contact us at the below mentioned details.

ANNULAR SOLAR ECLIPSE 2019

While the world is preparing for the transit of Mercury, India itself is gearing up for the next “Solar Eclipse”. The second central eclipse of 2019 will be visible from the South Indian states of Karnataka, Kerala and Tamil Nadu. The eclipse will be starting about an hour after the Sunrise which offers surreal views of the eclipsing duo of Sun and Moon. The eclipse, annular in nature will show a larger Sun and smaller Moon which does not cover the entire Sun but will cover the central part of the Sun as it appears a “Ring of Fire” (more details: <https://astro-phile.com/2019/06/26/annular-solar-eclipse-of-2019/>).

An Annular Eclipse is caused when the Sun is closer to Earth or at Perihelion while the Moon is far away or at Apogee. The Sun appears slightly larger than its size while the moon appears smaller than usual. When the positions are reversed, we see Total Solar Eclipse where the Sun is smaller and the larger Moon covers the entire disk. Astrophile is conducting special workshops in few of the schools in certain schools where the annularity will be observed.

To find out if your school falls in the zone, visit: <https://astrophilecom.files.wordpress.com/2019/06/central-contact-timings-for-ase2019.pdf>

If not, find your location at <https://astrophilecom.files.wordpress.com/2019/06/contact-times-for-ase2019.pdf>

Feel free to contact us to organise the observation event in your school.

