



The Astrophile Newsletter

One Fond of Starlore: An Amateur Astronomer
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Khagol Chayachitran to start from Today

An astrophotography competition for grade 6-12, submit up to 5 images, prizes to be won, exhibition in April

“Khagol Chayachitran” - an astrophotography competition is being organised for Indian students studying in Indian schools between grade 6-12. The competition is open from Jan 01 till Feb 28, 2019. Winners to be announced on March 30th. A photo exhibition for the best images will be placed in different cities in India in the month of April during celebrations on Global Astronomy Month 2019. Participation is strictly through school. The student can use a mobile camera, digital camera or a DSLR with or without the telescope to take the pictures of sky. The competition aims to motivate students to look up in the sky and appreciate the beauty of it. It also aims to impart better understanding for digital imaging in the field of research. For more details, about the categories, rules and important information, click [here](#).

Moon phases and dates

Important phases and dates for Moon to plan your observation

06/01/19	New Moon	06:58
14/12/19	First Quarter	12:15
21/12/19	Half Moon	10:46
28/12/19	Third Quarter	02:40



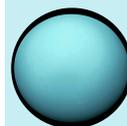
Mars

The red planet is still shining bright in the night sky. Setting just before midnight, the red planet has a lot of great features to reveal to the observers. It is currently the only planet in the sky in evening.



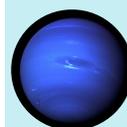
Venus

The brightest planet is now shining bright in the morning skies rising after 2 AM. Currently it is showing a crescent phase and soon will become half phase.



Uranus

The Planet Uranus is the second farthest planet but currently very well placed to be seen. The planet is visible all evening until sets just after midnight. Evenings are ideal for spotting it.



Neptune

The farthest planet of the Solar System is available in the evening skies for us to explore. Shining faint, but can be observed from a dark sky till the midnight when it sets.

3 Solar, 2 Lunar Eclipse, Mercury Transit in 2019,

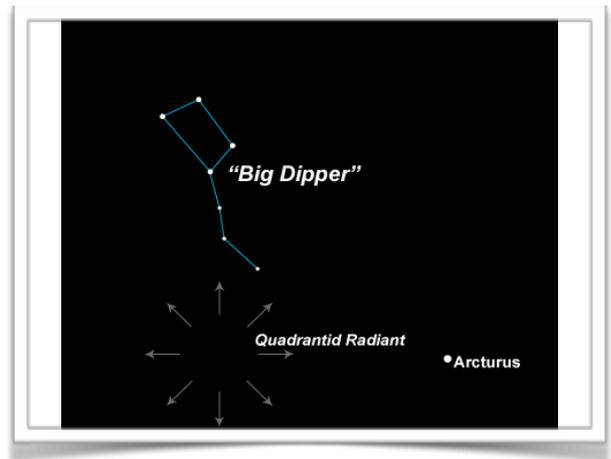


There will be three Solar eclipses occurring this year, first one will be a partial eclipse visible in North East Asia on Jan 06. Second will be a Total Eclipse visible from South America in Chile and Argentina. Third will be an Annular Eclipse of Sun visible in South India along with Middle East and South East Asia.

There will be one **total lunar eclipse** visible on Jan 21 from South America, Africa, parts of USA. Another partial eclipse will be visible on Jul 16 from India along with Middle East, Asia, Australia.

The **Transit of Mercury** will be visible from the east coast of USA, South America and parts of Africa. The next transit will be visible in 2032 and hence it is a golden opportunity which the stargazers are not going to miss.

Astrophile India will organise an expedition for the Annular Solar Eclipse of Dec 26 to South India. If you are interested and would like your students to be part of this exciting opportunity, drop us an [email](#) and we will keep you posted about the details as and when they are ready.



“Quadrantids Meteor Shower on Jan 04

The first meteor shower of 2019, the Quadrantids Meteor Shower is expected to be very good with upto 40 meteors can be seen in an hour. The peak will be on the nights between 03-05 Jan and can be spotted from a dark location, preferably outside of the city. With weekend coming around and Moon approaching towards new phase, it will be safe to say that the meteor shower will not be a disappointment.

The meteor shower is associated with an old comet name C/1490 Y1. The comet was observed some 500 years ago and today it is expected to be the same object as 2003 EH, a small asteroid. The comet was observed some 500 years ago by Chinese, Koreans and Japanese astronomers and matches the ephemeris of 2003 EH.

The meteor shower is associated with one constellation “Quadrans Murallis” which was later merged by IAU in to the constellation of Boötes. To find the constellation, take the handle of URSA MAJOR and extend the arc to reach to the brightest star in line (pic above).

INDIA IS ALL SET TO LAUNCH CHANDRAYAAN 2 WITH A LANDER

Indian Space Research Centre (ISRO) is all set to sail high with larger than life ambitions of launching Chandrayaan 2, a space mission to The Moon with Orbiter, Lander and Rover to explore. The mission will aim at testing new technologies and innovations which will help India work efficiently towards the development of the Manned Mission which is expected to sail in 2022.

Chandrayaan 2 is expected to be launched on Jan 31st 2019 from Sriharikota, the official launching pad of India’s space mission onboard one of the most trusted launch vehicle - The “GSLV Mk III”. It has the highest payload capacity among the available space vehicles and hence the obvious choice. The same launch vehicle has been used in the recent successful launch of HySIS mission.

Chandrayaan 2 was developed by India with help from Russian Space Agency after an agreement between the two countries in 2007. This mission will carry only the instruments “Made in India” and no foreign payload will be launched or attached. There are 5 instruments attached to the orbiter 4 to the lander and 2 to the rover which will study the Moon in a new way.

