

Celestial

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Observer

August 2018



Moon on July 29, 2018 Image by CCAS Member Dave Majors.

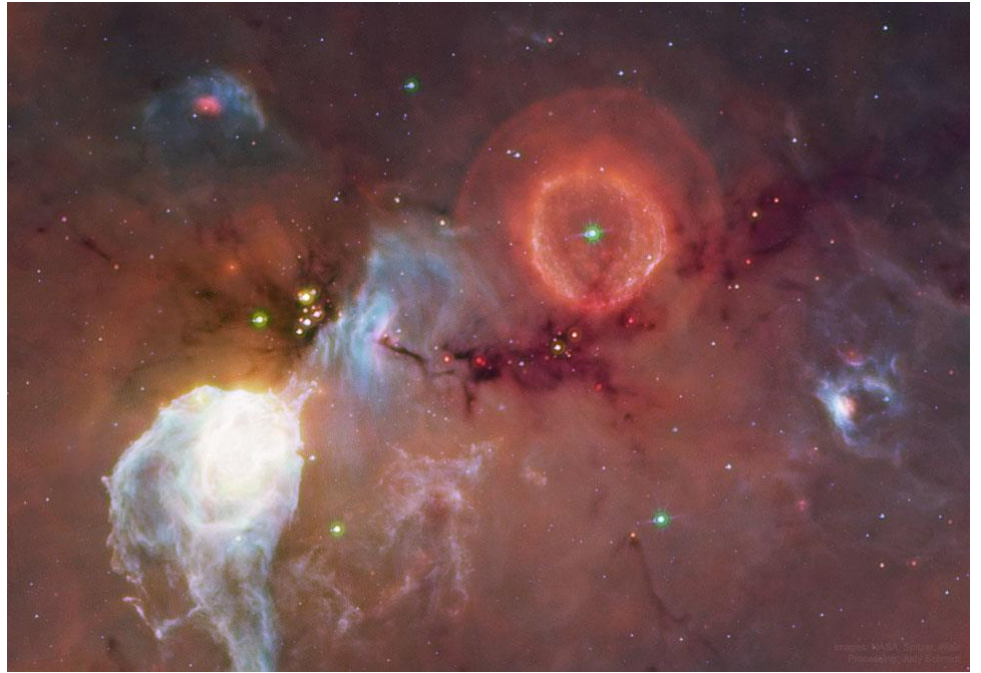
Next Meeting: Thursday, September 27th, 7PM at United Methodist Church, Wesley Building. *PLEASE NOTE:* There will be no August meeting.

Next Star Gazing: Saturday, August 14th at sunset at the Santa Margarita KOA. See inside for directions and a map.

Upcoming Meeting

Thursday, September
27th in the Wesley
Room
1515 Fredericks
Street, San Luis
Obispo
6:45 Doors Open |
7:00 Meeting Starts

*(Please note: there is
no August meeting)*



Topic: Variable Stars

Image Credit: NASA, Spitzer Space Telescope, WISE

Explanation: Stars this volatile are quite rare. Captured in the midst of dust clouds and visible to the right and above center is massive G79.29+0.46, one of less than 100 luminous blue variable stars (LBVs) currently known in our Galaxy. LBVs expel shells of gas and may lose even the mass of Jupiter over 100 years. The star, itself bright and blue, is shrouded in dust and so not seen in visible light.

The dying star appears green and surrounded by red shells, though, in this mapped-color infrared picture combining images from NASA's Spitzer Space Observatory and NASA's Wide-Field Infrared Survey Explorer. G79.29+0.46 is located in the star-forming Cygnus X region of our Galaxy. Why G79.29+0.46 is so volatile, how long it will remain in the LBV phase, and when it will explode in a supernova is not known.

Next Star Gazing

August 14, 2018 at sunset (7:30PM) at the Santa Margarita KOA

Our Sky Star Parties occur once a month, and are free and open to the public, and also weather-permitting. Check our website for all the details!

The Best Meteor Shower of the Year

By Jane Houston Jones and Jessica Stoller-Conrad

If you're a fan of meteor showers, August is going to be an exciting month! The Perseid meteor shower is the best of the year, and in 2018, the peak viewing time for the shower is on a dark, moonless night—perfect for spotting meteors.

The best time to look for meteors during this year's Perseid shower is at the peak, from 4 p.m. EDT on Aug. 12 until 4 a.m. EDT on the Aug. 13. Because the new Moon falls on the peak night, the days before and after the peak will also provide very dark skies for viewing meteors. On the days surrounding the peak, the best time to view the showers is from a few hours after twilight until dawn.

Meteors come from leftover comet particles and bits from broken asteroids. When comets come around the Sun, they leave a dusty trail behind them. Every year Earth passes through these debris trails, which allows the bits to collide with our atmosphere and disintegrate to create fiery and colorful streaks in the sky—called meteors.

The comet that creates the Perseid meteor shower—a comet called Swift-Tuttle—has a very wide trail of cometary dust. It's so wide that it takes Earth more than three weeks to plow all the way through. Because of this wide trail, the Perseids have a longer peak viewing window than many other meteor showers throughout the year.

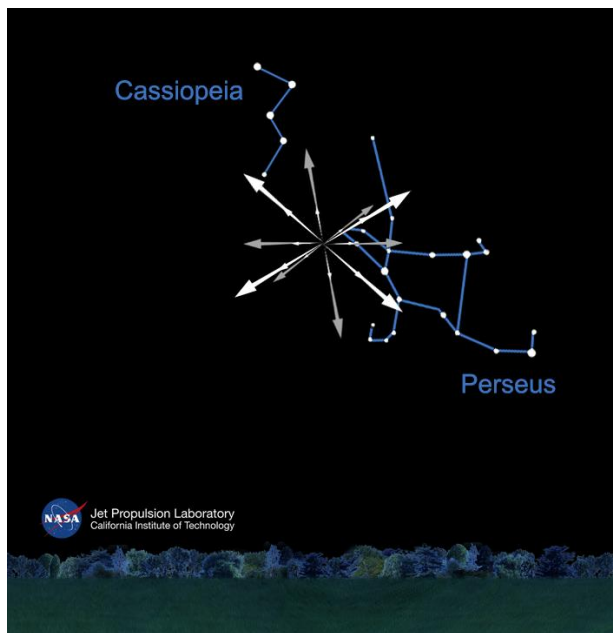
In fact, this year you should be able to see some meteors from July 17 to Aug. 24. The rates of meteors will increase during the weeks before Aug. 12 and decrease

after Aug. 13. Observers should be able to see between 60 and 70 meteors per hour at the shower's peak.

The Perseids appear to radiate from the constellation Perseus, which is where we get the name for this shower. Perseus is visible in the northern sky soon after sunset this time of year. Observers in mid-northern latitudes will have the best views.

However, you don't have to look directly at the constellation Perseus to see meteors. You can look anywhere you want to; 90 degrees left or right of Perseus, or even directly overhead, are all good choices.

While you're watching the sky for meteors this month, you'll also see a parade of the planets Venus, Mars, Jupiter and Saturn—and the Milky Way also continues to grace the evening sky. In next month's article, we'll take a late summer stroll through the Milky Way. No telescope or binoculars required!



*Caption: The Perseid meteor showers appear to radiate from the constellation Perseus. Perseus is visible in the northern sky soon after sunset this time of year.
Credit: NASA/JPL-Caltech*

CCAS Officers

Feel free to connect with us!



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CCAS Contact Information

Founded in 1979, the Central Coast Astronomical Society (CCAS) is an association of people who share a common interest in astronomy and related sciences.

Central Coast Astronomical Society

PO Box 1415

San Luis Obispo, CA 93405

Website: www.centralcoastastronomy.org

Facebook: www.facebook.com/CentralCoastAstronomicalSociety

Lectures & Star Parties

MONTHLY MEETING & LECTURE

On the fourth Thursday of the month (Jan-May, Aug-Oct), we often have world-renowned professionals and amateurs in astronomy speak about their projects during our monthly meetings. The talks are informal and questions are invited.

Meetings begin at 7:30 p.m. in San Luis Obispo. For location and directions, visit our website: www.sloastro.org

OUTREACH PROGRAM

We offer a limited number of outreach programs where we bring our star party to you. These custom events include a talk about current topics in space science. After the lectures, we make our telescopes available for your group to observe the wonders of the night sky.

STAR-GAZING EVENTS

Join us for a star-gazing evening by observing the dark skies through club members' telescopes. It begins just before sunset on one Saturday each month. The Star Party is hosted in Santa Margarita. (See www.sloastro.org for dates, times and locations).

Need help operating your telescope? Bring your telescope one hour early for help on how to work your telescope by our friendly astronomers.



Why Join CCAS?

BENEFITS OF MEMBERSHIP

- Subscription to *Celestial Newsletter*, our monthly bulletin of articles and events
- Interaction with world class speakers as they present cutting edge astronomical research
- Discounts on *Sky & Telescope* and *Astronomy* magazines
- Social events, such as our annual Star-B-Que
- Club telescopes – use one of the club's loaner scopes, complete with instructional lessons
- Access to 'Members Only' are of the website containing observing tips, scope tricks, and educational articles for all levels
- Field trips – to observatories and other locations of scientific interest, such as Mt. Wilson Observatory in Pasadena, Chabot, Space and Science Center, Fremont Peak, and the Stanford Linear Accelerator Center (registration fee may be requested)
- Extended observing hours on public nights and private observing sessions exclusively for CCAS members
- Assistance from club members, and other "how-tos" to help you best enjoy amateur astronomy and astrophotography

Questions about membership or other events? Call Lee Coombs at (805) 466-2788 or visit our website at:

www.sloastro.org

How to Join

MEMBERSHIP APPLICATION

Membership is annual for each upcoming year, beginning when you first sign up. You can sign up online or mail in this form:

Membership Categories (Check one):

- \$15 Youth/Student
- \$15 Seniors
- \$20 Individual/Family

Magazine subscriptions Add specified amount to membership fee for a 1-year subscription.

- Sky & Telescope* (+ \$33) only in September
- Astronomy* (+ \$34) only available in September

Information: (PRINT CLEARLY!!)

Name(s) _____

Address _____

City _____

State, Zip _____

Home Phone _____

E-Mail _____

Newsletter Subscription:

You can choose E-Mail (recommended) or hard copy delivery for *Celestial Observer*: (check one)

- E-Mail (full color)
- Hard Copy (black & white)

Please make checks payable to Central Coast Astronomical Society and mail to P.O. Box 1415, San Luis Obispo, CA 93405.

