

# Celestial

Volume 39 Issue 5



# Observer

June 2019



*David Majors*

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**Next Meeting:** Thursday, June 27th at 7 PM, United Methodist Church Wesley Building with guest speaker Dave Majors on Variable Stars!

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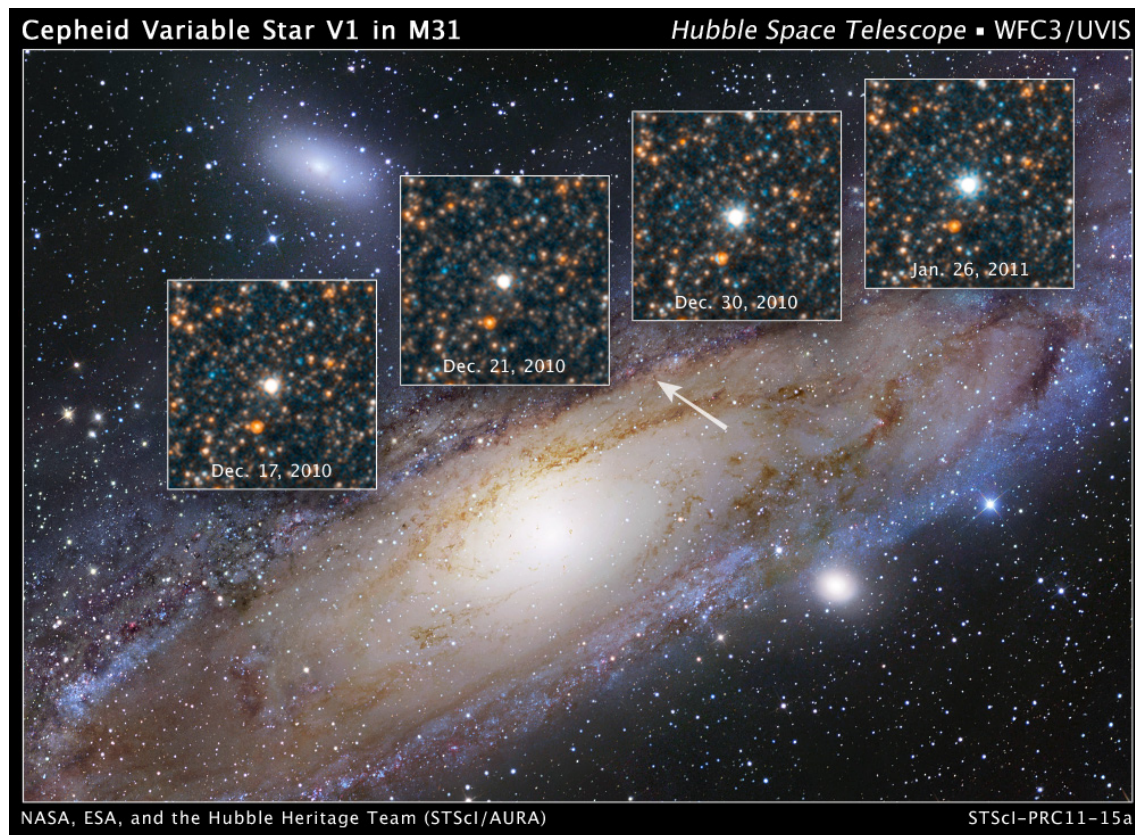
**Next Star Gazing:** Saturday, June 29th at sunset at the Santa Margarita Lake. See inside for directions and a map.

# Upcoming Meeting

Wesley Room, 1515 Fredericks Street, San Luis Obispo

6:30pm Doors Open | 6:45 Refreshments & Solar Telescope Viewing | 7:00 Meeting Starts

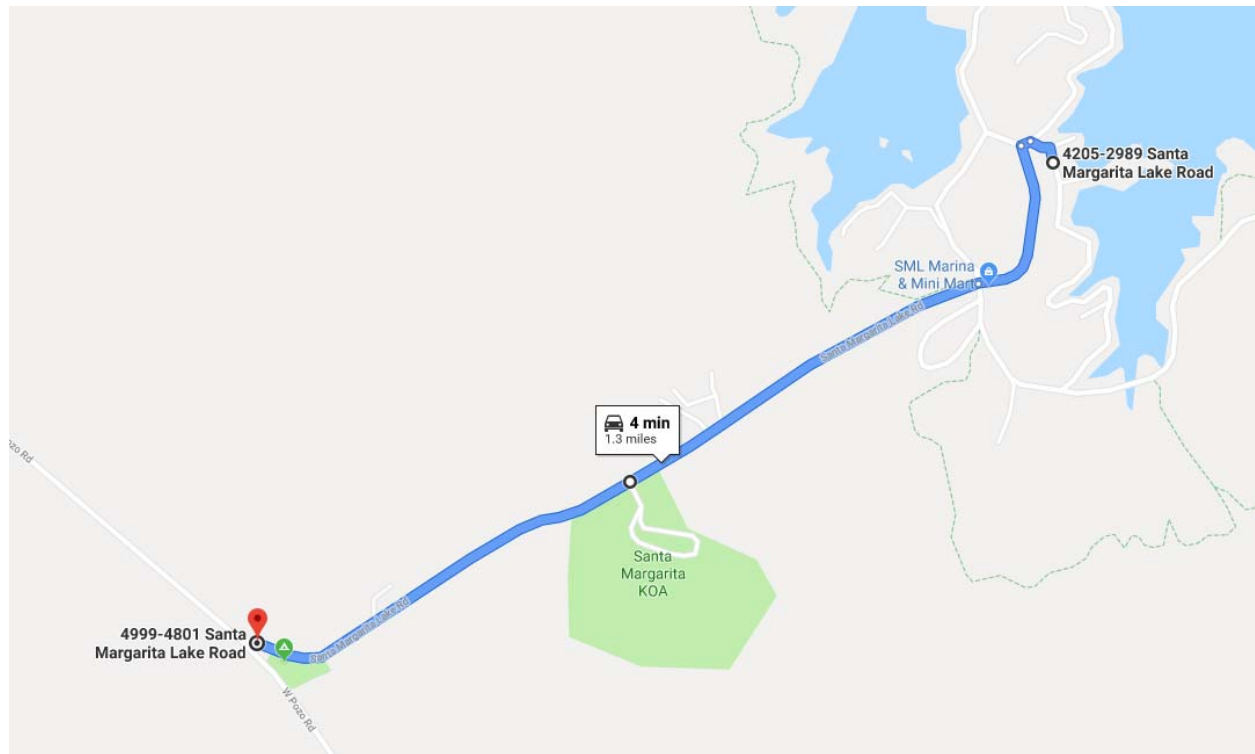
**June 27: Dave Majors presenting on Variable Stars**



A variable star is a star that changes brightness. A star is considered variable if its apparent magnitude (brightness) is altered in any way from our perspective on Earth. These changes can occur over years or just fractions of a second, and can range from one-thousandth of a magnitude to 20 magnitudes. More than 100,000 variable stars are known and have been catalogued, and thousands more are suspected variables. Our own sun is a variable star; its energy output varies by approximately 0.1 percent, or one-thousandth of its magnitude, over an 11-year solar cycle. *Source: [www.Space.com](http://www.Space.com)*

# Star Gazing at the New Site

May 25, 2019. By David Majors



Friday night at the request of the Rangers Scott, Tom, Ron, and I held a small Star Party for the Memorial Day weekend. Originally slated for Saturday following a Ranger led Night Hike weather forecasts had us re-schedule for Friday instead without the hike.

As it turns out we had a complete mix of instrument types.

1. Scott McMillan- Giant "Opera Glasses"
2. Tom Frey- Refractor
3. Ron Setina- SCT
4. Myself- Dob

Unfortunately the clouds came in with the Sunset and we had overcast skies for a few hours. Tom was the catalyst however as the clouds cleared just after he put his scope away. Ron was the other catalyst as we got a group of about 10 campers from LA right after he had put his away.

We had only a few visitors. One couple that came by right after we had set up had just moved to Atascadero and was scouting out the local areas. The second group from LA had a number of members who had never seen the sky under dark conditions before. I also did a small presentation for the two Rangers who dropped by periodically. One smaller group of hikers came by just as I was putting away my scope so I gave them a little star tour.

We did see the usual smorgasbord of objects after the clouds cleared- Jupiter of course, the M-81 M-82 pair, the Leo Triplett, The binary Algieba in Leo as well as the companion to Regulus, M-13, M-57, two of my variables R Leo and R CrB, and Ron did a planetary in Corvus. And of course, we did the usual Star Tours. Scott and I policed up the site and closed the gate around midnight. And of course - while I have no problem navigating around the night sky I did manage to get lost when trying to leave.

One lesson we did learn- which we discussed with the Rangers- is that Friday is probably not a good day to hold a Star Party. The campers are tired from driving and late arrivals are still busy setting up camp. As already stated this event was originally slated for Saturday but was moved up due to weather forecasts.

We look forward to seeing you at our next star gazing event!

FAQ:

Are there entrance fees? NO

Are there public bathrooms? YES

Is it far from the KOA? NO, it's 1.3 miles further.



# CCAS Meeting

May 23, 2019. By Lee Coombs

Our well attended meeting on May 23rd. was a huge success. Over 50 attendees were treated to two presentations. The first was a talk by Captain Liz Ruth, who is the first female pilot for SOFIA, the Stratospheric Observatory for Infrared Astronomy. She gave a brief history of high altitude astronomy then presented a detailed description of the SOFIA aircraft and its instrumentation. This most interesting talk was followed by many questions about the program and its future.



The second presentation was given by Dr. Paul Sutter from Ohio State University. He was a former Cal Poly graduate who received his PhD at the University of Illinois @ Urbana-Champaign. His presentation titled “Your Place in the Universe” spoke to the scale of our universe and how astronomers have, over the centuries, measured distances to objects from nearby stars to distant galaxies. His clear explanations of how these measurements were made were most informative. Both speakers were bombarded with many questions which reflected the interest their presentations generated in the audience. Many attendees indicated this was one of our best meetings with regards to interest and useful information. Hopefully more programs of this caliber will be forthcoming in the future.



# Astronomy on Tap (Event)

June 5, 2019 in Santa Barbara. Report by CCAS Member Dave Majors.

Scott McMillan and Dave Majors along with Lucille from the Cambria Dark Sky group- attended Wed night's Astronomy on Tap event in Santa Barbara. The event - sponsored by the Los Cumbres Observatory- features Astronomers mixing it up at the Matrix Bar in Santa Barbara.

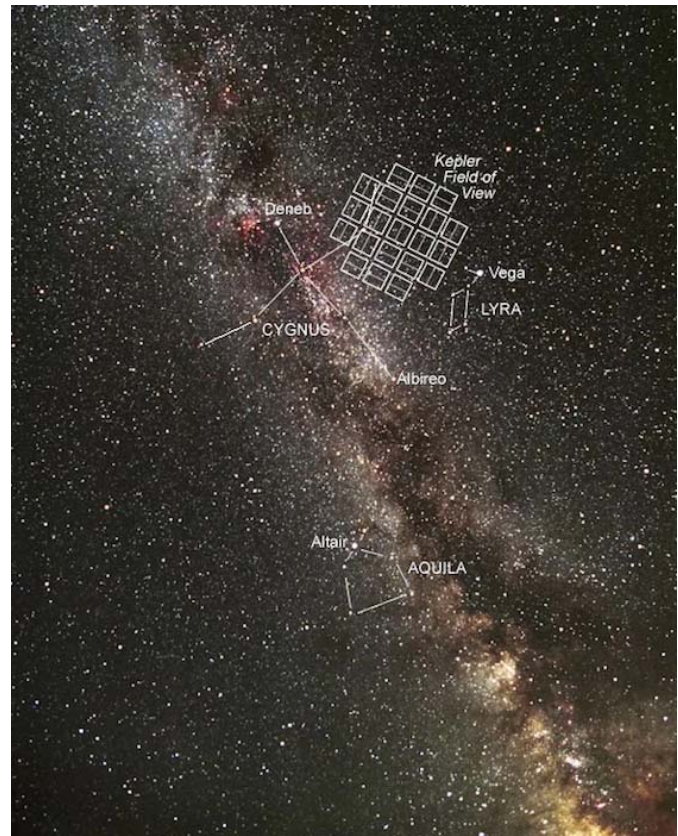
Wednesday night featured Tabetha Boyajian speaking about the oddities of our recent visitor from outside the Solar System (Minor Planet Oumuamua) and her favorite star.

After Tabby's talk we had a presentation by the Los Cumbres staff including a grad student from UCSB on Project Artemas - re Moon base and colonization. In addition there was a conference in May that simulated the discovery and collision of a Minor Planet collision with Earth- specifically diverting the main mass so it wouldn't strike Earth at Denver but the diversion broke off a splinter that took out New York.

The last presentation was by Duncan Brown of Syracuse University on the continued progress of LIGO. Sensitivity is much improved and they are seeing literally within the last month a collision between two neutron stars and a merger of a neutron star with a black hole.

Here's the link for Tabby's favorite star:

<https://www.kickstarter.com/projects/608159144/the-most-mysterious-star-in-the-galaxy>



# Next Star Gazing

**June 29, 2019 at sunset (8 PM) at the Santa Margarita Lake**

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!

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## CCAS Officers

Feel free to connect with us!



President: Joseph Carro

Vice President: Tom Frey

Vice President: Aurora Lipper

Outreach Coordinator: Dave Majors

Treasurer: Lee Coombs

Celestial Advisor: Kent Wallace

Webmaster: Joe Richards

## 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](http://www.centralcoastastronomy.org)

Facebook: [www.facebook.com/CentralCoastAstronomicalSociety](https://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](http://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 website [www.sloastro.org](http://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](http://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.



