



THE LOS ANGELES ASTRONOMICAL SOCIETY

THE BULLETIN

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LAAS Banquet, 2019

Here is a random photo submitted after the banquet. I am not sure who took the photo so thank you to the photographer. Our annual banquet was canceled in both 2020 and 2021, due to the pandemic. The banquet is all about good food, great speakers, club awards and fellowship.

Upcoming Virtual Club Events

Board Meeting: Feb. 9, 2022
General Meeting: Feb. 14, 2022
Dark Sky Night: Feb. 26, 2022

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All members are encouraged to contribute articles of interest for publication in The Bulletin. Please send your articles and images to:

communications@laas.org

Update Your Contact Information

Please send any contact info changes to the club secretary at

secretary@laas.org

News - The Garvey Ranch Park Observatory

Garvey Ranch Observatory will be open **only** to fully vaccinated members with proof of vaccination. Masks are required at all times, indoors and outdoors.

New Club Officers and Board Members

2022



The votes are in! Here is the list of the officers and board members for 2022.

Congratulations to all!

Officers:

President: Darrell Dooley
VP: Alecia Hurst
Treasurer: John O'Bryan
Secretary: Spencer SooHoo

Board Members:

Curtis Byrom
Javier Colon
Ed Dempsey
Zoly Dobrovics
Ralph Gonzales
Greg Thompson
Tim Thompson
David Yakerson

Alternate: Joe Phipps

NSN Webinar Series:

Psyche: Journey to a Metal World

Join the NASA Night Sky Network on **Tuesday, February 15** at 6:00pm Pacific Time (9:00pm Eastern) to hear **Dr. David Williams** bring us the story of a NASA mission to investigate Psyche, the largest M-type asteroid in the Solar System.

Asteroid (16) Psyche is the largest M-type (metal-dominated) asteroid in the Solar System, and has never been explored by spacecraft. In January 2017 NASA selected Arizona State University (ASU) to lead a Discovery-class mission to investigate this strange, new world. The Psyche mission is preparing to launch in August 2022 – what will it find? Please join Professor David Williams of ASU's School of Earth and Space Exploration, and a Psyche Mission Co-I and Deputy Imager Lead, to discuss the details of the Psyche Mission and what it may find as it explores this metal world.

About Dr. David Williams

Dr. David A. Williams is a Research Professor in the School of Earth and Space Exploration at Arizona State University, Tempe, Arizona. Dr. Williams is the Director of the Ronald Greeley Center for Planetary Studies, a NASA-funded planetary data center at ASU. He is also the Director of the NASA Planetary Aeolian Laboratory, which administers wind tunnels the Ames Research Center in California. David is currently performing research in volcanology and planetary geology, with a focus on planetary mapping, geochemical, and remote sensing studies. His current research focusses on planetary geologic mapping of bodies across the Solar System, and computer modeling of the physical and geochemical evolution of lava flows in a variety of planetary environments. He was involved with NASA's *Magellan* Mission to Venus, *Galileo* Mission to Jupiter, *Dawn* Mission to asteroid Vesta and dwarf planet Ceres, and ESA's *Mars Express* orbiter mission. He is a member of the Janus camera team for the ESA JUICE mission, and he is currently Deputy Imager Lead and a Co-Investigator on NASA's *Psyche* Mission, scheduled to launch in August 2022. In 2014 David was elected a Fellow of the Geological Society of America, and asteroid 10,461 DAWILLIAMS was named in his honor.

Registration

Night Sky Network members can preregister for this webinar on Zoom on the [Outreach Resource page](#) (login required).

Further Information and Viewing Options

The event will also be streaming live on YouTube, but please note that questions asked over the NSN-members-only Zoom Q&A will be prioritized.

Link: https://youtu.be/qJX4TC_sul

The recording will be uploaded both to the webinar's resource page and to the [NSN YouTube](#) page for folks that are unable to attend this evening's session.

NSN Webinar Series News Page

Find details on current, past and future webinars, along with our upcoming webinar schedule, on the NSN webinar series news page.

Link: https://nightsky.jpl.nasa.gov/news-display.cfm?News_ID=707

Hang Out with the Gemini Twins

By David Prosper

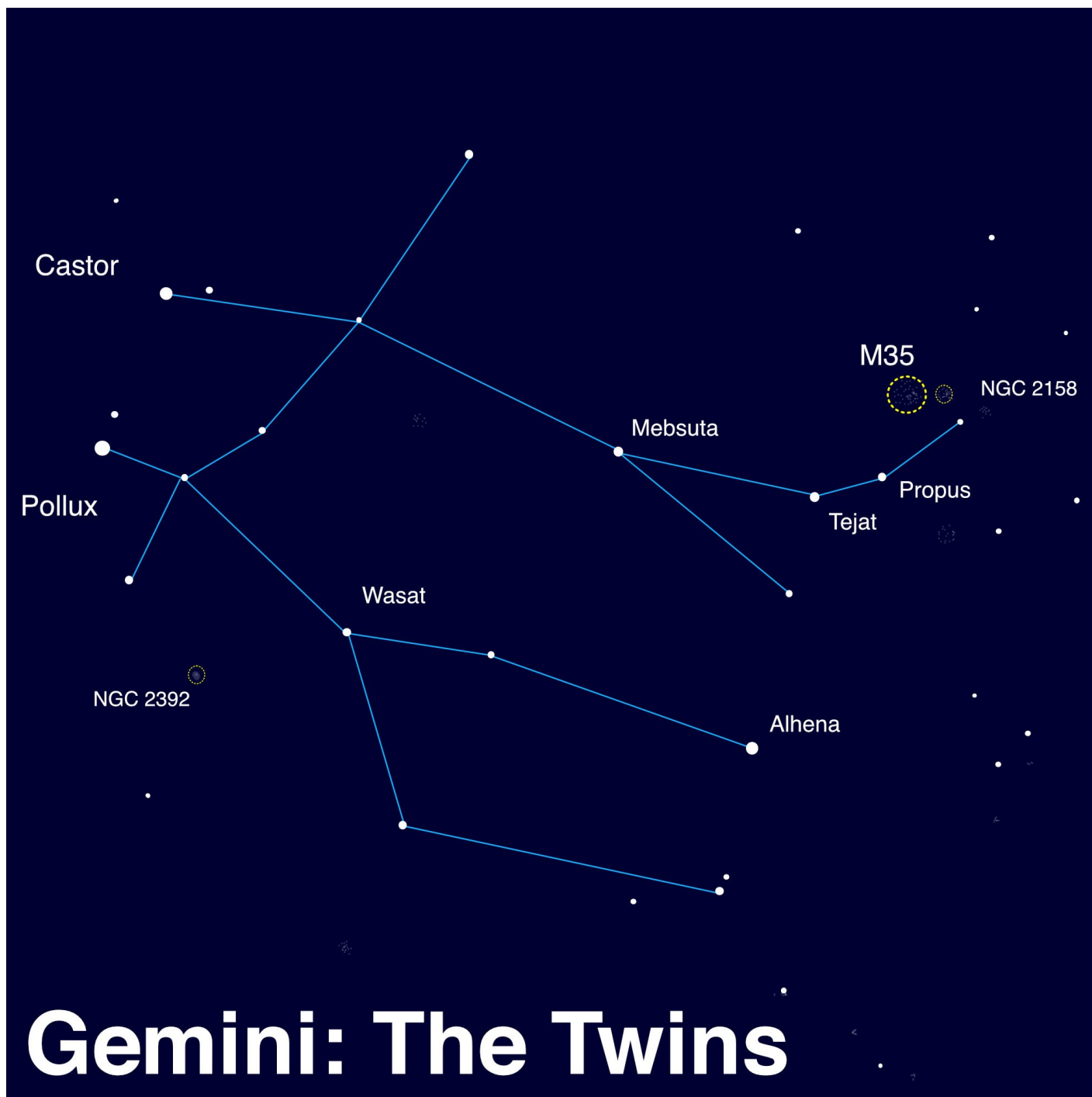
The night skies of February are filled with beautiful star patterns, and so this month we take a closer look at another famous constellation, now rising high in the east after sunset: Gemini, the Twins!

If you're observing Orion, as discussed in last month's article, then Gemini is easy to find: just look above Orion's "head" to find Gemini's "feet." Or, make a line from brilliant blue-white Rigel in the foot of Orion, through its distinct "Belt," and then on through orange Betelgeuse. Keep going and you will end up in between the bright stars Castor and Pollux, the "heads" of the Gemini Twins. While not actually related – these stars aren't bound to each other, and are almost a magnitude apart in brightness – they do pair up nicely when compared to their surrounding stars. Take note: more than one stargazer has confused Gemini with its next-door neighbor constellation, Auriga. The stars of Auriga rise before Gemini's, and its brightest star, Capella, doesn't pair up as strikingly with its second most brilliant star as Castor and Pollux do. Star-hop to Gemini from Orion using the trick above if you aren't sure which constellation you're looking at.

Pollux is the brighter of Gemini's two "head" stars - imagine it has the head of the "left twin" - and located about 34 light-years away from our Solar System. Pollux even possesses a planet, Pollux b, over twice the mass of Jupiter. Castor - the head of the "right twin" - by contrast, lies about 51 light-years distant and is slightly dimmer. While no planets have been detected, there is still plenty of company as Castor is actually a six-star system! There are several great deep-sky objects to observe as well. You may be able to spot one with your unaided eyes, if you have dark skies and sharp eyes: M35, a large open cluster near the "right foot" of Gemini, about 3,870 light-years away. It's almost the size of a full Moon in our skies! Optical aid like binoculars or a telescope reveals the cluster's brilliant member stars. Once you spot M35, look around to see if you can spot another open cluster, NGC 2158, much smaller and more distant than M35 at 9,000 light-years away. Another notable object is NGC 2392, a planetary nebula created from the remains of a dying star, located about 6,500 light-years distant. You'll want to use a telescope to find this intriguing faint fuzzy, located near the "left hip" star Wasat.

Gemini's stars are referenced quite often in cultures around the world, and even in the history of space exploration. NASA's famed Gemini program took its name from these stars, as do the appropriately named twin Gemini North and South Observatories in Hawaii and Chile. You can discover more about Gemini's namesakes along with the latest observations of its stars and related celestial objects at [nasa.gov](https://www.nasa.gov).

Continued on next page



Castor and Pollux are Gemini's most prominent stars, and often referred to as the "heads" of the eponymous twins from Greek myth. In Chinese astronomy, these stars make up two separate patterns: the Vermillion Bird of the South and the White Tiger of the North. What do you see? The Night Sky Network's "Legends in the Sky" activity includes downloadable "Create Your Own Constellation" handouts so you can draw your own star stories: bit.ly/legendsinthesky

Image created with assistance from Stellarium.



Montage of Gemini North, located on Mauna Kea in Hawaii, and Gemini South, located on Cerro Pachón in Chile. These “twin” telescopes work together as the Gemini Observatory to observe the entire sky.

Image Credit: NOIRLab Source: <https://www.gemini.edu/gallery/media/gemini-northsouth-montage>



This article is distributed by NASA Night Sky Network

The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.gov to find local clubs, events, and more!

Monthly Sky Report

By Dave Nakamoto

The planets, in the order they appear from the evening to the morning sky.

Jupiter is in the southwest as evening starts. On the 1st, the sun sets at 5:24 p.m. and Jupiter sets at 7:17 p.m. By the 15th, Jupiter is too close to the sun for safe observation. In March, it will appear in the morning sky. A telescope capable of magnification 50x will show the Red Spot, and the four bright Galilean moons can be seen moving back and forth, across and behind Jupiter.

Neptune shines at magnitude +8.0. On the 1st, Neptune sets at 8:22 p.m. On the 28th, the planet sets at 6:42 p.m., and is too close to the sun to be observed. On the 15th, Neptune is at Right Ascension 23^h 31^m 1^s with a declination of $-4^{\circ} 20' 51''$. The disk of Neptune is only 2.2 arcseconds wide, and so a telescope with a magnification of 150x is needed to show the disk.

Uranus shines at magnitude +5.8. On the 1st, Uranus sets at 12:20 a.m., and on the 28th, the planet sets at 10:37 p.m. On the 15th, Uranus is at Right Ascension 2^h 34^m 16^s with a declination of $+14^{\circ} 43' 11''$. The disk of Uranus is only 3.5 arcseconds wide, and so a telescope with a magnification of 150x is needed.

For both Uranus and Neptune, you might recognize them even if you don't see a disk by remembering the following. Both planets will be an unusual greyish green color, although the color will be pale. They also will not twinkle as the stars do. Finally, even at low magnifications, you might get the impression that they are not pinpoints of light.

Venus starts its long visitation in our morning sky. Venus rises at 4:34 a.m. on the 1st, and 3:48 a.m. by the 28th. Venus appears as a thin crescent. Do not observe any planet when the sun is in the sky, for the danger to the eyes is great.

Mars rises next to rise in the morning sky. On the 1st, the planet rises at 4:37 a.m., and on the 28th, it rises at 4:10 a.m. Mars is a disk only five arcseconds wide and will not show any surface features through a telescope.

Mercury is next, rising at 5:38 a.m. on the 1st, and on the 28th it rises at 5:20 a.m. Mercury reaches greatest western elongation when it reverses its motion against the background of stars and starts moving eastward. Do not observe any planet when it comes close to the sun, for the danger to the eyes is great.

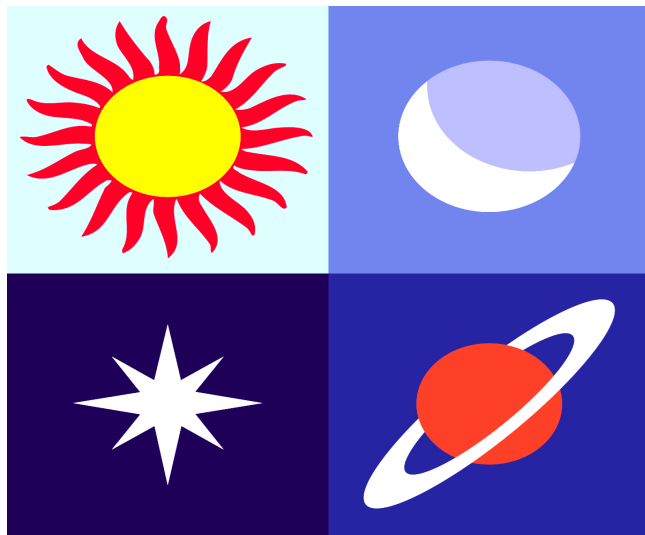
Saturn starts February too close to the sun for observations. By the 28th, Saturn rises at 5:26 a.m., about an hour ahead of the sun. The rings and Saturn's largest moon Titan may be seen with a telescope capable of magnification 50x.

The Moon is at first quarter on the 8th, full on the 16th, and last quarter on the 23rd. Because February has only 28 days, there are no dates when the moon is new.

David Nakamoto has been observing the heavens through various scopes since he was in the 5th grade. You can contact Dave by email at:

dinakamoto@hotmail.com





Almanac

February 1 - New Moon. The Moon will be located on the same side of the Earth as the Sun and will not be visible in the night sky. This phase occurs at 05:48 UTC. This is the best time of the month to observe faint objects such as galaxies and star clusters because there is no moonlight to interfere.

February 16 - Full Moon. The Moon will be located on the opposite side of the Earth as the Sun and its face will be fully illuminated. This phase occurs at 16:59 UTC. This full moon was known by early Native American tribes as the Snow Moon because the heaviest snows usually fell during this time of the year. Since hunting is difficult, this moon has also been known by some tribes as the Hunger Moon, since the harsh weather made hunting difficult.

February 16 - Mercury at Greatest Western Elongation. The planet Mercury reaches greatest western elongation of 26.3 degrees from the Sun. This is the best time to view Mercury since it will be at its highest point above the horizon in the morning sky. Look for the planet low in the eastern sky just before sunrise.

March 2 - New Moon. The Moon will be located on the same side of the Earth as the Sun and will not be visible in the night sky. This phase occurs at 17:38 UTC. This is the best time of the month to observe faint objects such as galaxies and star clusters because there is no moonlight.

Source:

<http://www.seasky.org/astronomy/astronomy-calendar-2021.html>



Want to know what objects will be in tonight's sky in Los Angeles? Use this link to find out:

<https://www.timeanddate.com/>

Fun Astronomy Links and Resources:

1. Learn about Light Pollution: <https://www.darksky.org/light-pollution/>


2. The James Webb Space Telescope: Where is it now?

<https://webb.nasa.gov/content/webbLaunch/whereIsWebb.html>

3. NASA/JPL Printouts (Posters, Calendars)

https://www.jpl.nasa.gov/edu/learn/toolkit/?resource_type=Printouts+and+Downloads

February 2022

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9 Board Meeting	10	11	12
13	14 General Meeting 	15 NSN Webinar	16	17	18	19
20	21	22	23	24	25	26 Dark Sky Night
27	28					

H A P P Y
Valentine's Day 

Meet The New Members

Welcome to the LAAS!



Darin Darakananda and Family

LAAS Board Meetings

.Due to the pandemic, all Board Meetings are now held online, live on Zoom. Please check the information posted in the IO Group Forum for any current news related to these meetings. If you wish to attend a board meeting, please send a request to secretary@laas.org for a link to Zoom.

Volunteer Opportunities

Every LAAS member is a volunteer at some point. Some members volunteer to share telescopes with the public, while others tackle administrative duties, help out at our community and public events, or join a club committee. Taking photos at our events and writing articles about events for our club newsletter are great ways to volunteer and become more involved in the LAAS as a member.

HOWEVER, due to Covid-19 restrictions in our area, all outreach events have been cancelled until further notice.

Volunteers are always welcome to write articles for our monthly newsletter or share images captured of the night sky. Members are also welcome to come up with new ideas and future activities for the membership which can be shared in Board meetings. If you are artistic and enjoy creating posters or flyers, or printable astro-educational handouts for further star parties, please let us know.

Time To Renew Your Membership?

Please remember to renew your membership once you receive notice from the Club Secretary in your email inbox.

Please send any new contact information to the club secretary at secretary@LAAS.org.



LAAS Outreach Program

The mission of LAAS is to promote interest in and advance the knowledge of astronomy, optics, telescope making and related subjects. In furtherance of its mission, LAAS conducts public star parties and other outreach events that are intended to enhance the public's understanding of astronomy and its enjoyment and appreciation of the beauty and wonders of our universe.



We provide outreach events at local schools, Griffith Observatory, Mt. Wilson Observatory, various state and county parks, and community events.

Join our Outreach team of volunteers today.

Contact Heven Renteria, our Outreach Coordinator at Outreach@LAAS.org



Want to include astronomy outreach at your school's science night or open house? Follow the link below to access the request form:

https://nightsky.jpl.nasa.gov/club-eventrequest.cfm?Club_ID=1344

LAAS Club Swag

LAAS T-SHIRTS, HOODIES, MUGS, AND MORE!

To find new merchandise from our store, please use the following link: <https://www.laas.org/store>

Please note all prices listed are subject to change and include all shipping and handling costs. All items will be shipped directly to the address you provide on your order form.



Please remember all LAAS Outreach activities are postponed due to the Covid-19 pandemic.

Amazon Smiles

The LAAS is now listed on Amazon Smiles. When you purchase any goods on Amazon.com, Amazon will donate a small percentage of the funds they receive from you, back to the LAAS. Here's some information to help bring in funds for our club projects:

What is AmazonSmile?

AmazonSmile is a simple and automatic way for you to support your favorite charitable organization every time you shop, at no cost to you, with the added bonus that Amazon will donate a portion of the purchase price to your favorite charitable organization., such as the LAAS!

Learn more by following this link:

<http://smile.amazon.com/>



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John O'Bryan, Jr.

Astronomy Magazine Discounts

Discounts for astronomy magazines can be found on the internet. Look for the best deals possible. Send a copy of your LAAS membership card with your check or payment to receive a club member discount.

Astronomy
magazine

As a member of the Night Sky Network, you may use the above link to renew your Astronomy Magazine subscription (or enter a new subscription) at the club discount rate. If this is a renewal, Astronomy Magazine will match your entered name and address and extend your subscription. For inquiries, please contact Astronomy Magazine customer service & sales at 1-800-533-6644.

[Click here to subscribe to Sky and Telescope Magazine.](#)



Join the Astronomical Society of the Pacific and help support the cause of advancing science literacy through engagement in astronomy. Member benefits include a **subscription to the online Mercury Magazine**, published quarterly, and **Astronomy Beat**, a monthly on-line column written by "insiders" from the worlds of astronomy research and outreach.

Subscribe or renew to the McDonald Observatory's StarDate Magazine and receive a special discount. Go to this page and press "Add to Cart" under the kind of subscription you want:

<http://stardate.org/store/subscribe>

Then, on the Checkout form, enter "network" in the Coupon Code box.



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Griffith Observatory:

213-473-0800

Sky Report:

213-473-0880



Follow us on social media by clicking on one of the images below



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Find astronomy outreach activities by visiting NASA's Night Sky Network:

<https://nightsky.jpl.nasa.gov/about.cfm>