

The Observer

The Official Publication of the Lehigh Valley Amateur Astronomical Society

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May 2025

Volume 65 Issue 05



LVAAS General Meeting Public Welcome!

Sunday, May 4, 2025, at 7 p.m. at SM Headquarters

Citizen Science, Variable Stars, and the AAVSO

presented by

Dr. Brian Kloppenborg (Speaker is via Zoom)



Dr. Kloppenborg will introduce the exciting world of citizen science in astronomy, focusing on how you can actively contribute to scientific discovery. His talk will cover engaging citizen science projects, such as those on Zooniverse, and collaborations like JunoCAM, IOTA, and SAS. It will include a detailed look at variable stars, featuring examples like SS Cyg, T CrB, Cepheid variables, and highlights of recent discoveries, such as the Great Dimming of Betelgeuse and the newly discovered Iota Del. Finally, the talk will introduce the AAVSO, (American Association of Variable Star Observers), its resources, and how you can start observing variable stars, either visually or digitally.

Dr. Brian Kloppenborg is an astrophysicist and entrepreneur currently serving as the Executive Director of the AAVSO. He earned a Ph.D. in physics with an astrophysics specialization from the University of Denver, and a B.A. in physics from Hastings College. Before joining the AAVSO, Dr. Kloppenborg worked as a research scientist at the Georgia Tech Research Institute, where he led multidisciplinary teams as a subject matter expert, lead engineer, product owner, and project director.

Dr. Kloppenborg's research focuses on combining photometry, spectroscopy, astrometry, and long-baseline optical interferometry to deepen our understanding of eclipsing binaries, novae, and young stellar objects. His work has been published in esteemed journals, including *Nature*, *The Astrophysical Journal*, and the *Journal of the AAVSO*.

Throughout his career, Dr. Kloppenborg has been dedicated to fostering collaboration between amateur and professional astronomers, advancing scientific discovery, and promoting educational outreach in astronomy.

Prospective new members who wish to attend the meeting please email membership@lvaas.org.

The LVAAS 2025 Calendar will be available for sale at this event. Purchase price is only \$10!



Minutes from the LVAAS General Meeting – April 13, 2025

The April 2025 LVAAS general meeting was conducted electronically, using an online service and at our South Mountain Headquarters. Approximately 50 people were in attendance, in person and online. Director Benjamin Long opened the meeting at 7:00 p.m.

Tonight's presentation was "Stargazing and Beyond: A Global Network of Citizen Astronomers" featuring Dr. Franck Marchis.

Astronomy is a science that inspires virtually everyone, which makes it a great tool for expanding scientific literacy. It also has a uniquely powerful ability to make us aware of Earth's value and fragility. By inspiring people to engage in citizen science, astronomy fosters not only scientific research, but also collaborative knowledge-building based on a dialogue between experts and amateurs.

The Unistellar network is by far the largest network of telescopes and citizen astronomers around the world, with more than 13,000 digital telescopes in more than 50 countries. This network collected more than 4,000 scientific observations in 2022. Our citizen astronomers have helped the NASA TESS mission by confirming exoplanets, and also supported NASA DART by recording asteroid impacts live, as well as their aftermaths, validating the efficiency of the kinetic impactor technique to protect humanity against the threat of these impacts. We present here some of the key scientific results achieved in 2021-2024, along with anticipated developments in education to make astronomy easier, fun, inclusive and accessible. With the connected and decentralized platform SkyMapper, we propose to accelerate space research and popularize it by inviting people who own a telescope to be part of space exploration.

Dr. Franck Marchis is a senior astronomer and Director of Citizen Science at the SETI Institute; Chief Science Officer and co-founder of Unistellar; and co-founder and Chief Executive Officer of SkyMapper. After earning his PhD from the University of Toulouse, France in 2000, Dr. Marchis moved to the United States to pursue his passion for astronomy and exploration. His research, published in *Nature*, *Science*, and other leading journals, includes notable discoveries such as the first triple-asteroid system in 2005, the binary Trojan asteroid Patroclus in 2006, and the direct imaging of a Jupiter-like exoplanet in 2015. He has been part of major advancements in adaptive optics for 8-10m class ground-based telescopes, as well as citizen science using networks' small telescopes. In recognition of his contributions to astronomy, the asteroid (6639) Marchis was named in his honor for his discovery of the first triple-asteroid system. In 2023, Dr. Marchis was elected a Fellow of the California Academy of Sciences for his dedication to outreach and the search for life in the universe. The following year, he received the Carl Sagan Center Director's Award for his excellence in SETI research, education, and outreach.

Membership: Rich Hogg

- The following members completed their second readings and are now full members:
Benjamin Schultz (family membership with Katherine Santee)
Jeff Higgins
- The following members completed their first readings:
Girt Allerton
Anku Aravind
Janet Heimbach
Zach Lentz
Patrick Mackewicz
- The following members have previously completed their first readings and are still eligible to complete their second readings to become full members:
David Follweiler
Jennifer Klinger (family membership with Jody Klinger)
Weston Kurtz (family membership with Ashley Medernach)
Njklas Mueller
Cooper Mulderry

General Comments:

- Presentation given on 2026 LVAAS Youth Sponsorship Program (video)
- Cherry Springs Star Party Registration opens on April 14, 2025 at 6 p.m.

South Mountain Maintenance – Bill Dahlenburg

- We are always looking for help. We are usually here on Saturday mornings to assist with your telescopes or to give you a tour of our facilities. Please contact Bill to confirm that someone will be there before arriving.

AstroImaging- Tom Duff

- Our next meeting will be on Saturday April 26, 2025 at South Mountain at 7:00 p.m. Our meeting topic will be Planetary Imaging.

StarGazers- Kyle Kramm

- Our next meeting will be on Friday May 9, 2025 at South Mountain at 7:00 p.m. Our meeting topic is not yet determined.

MegaMeet- Thomas Julius

- MegaMeet will be held on June 27-June 29, 2025 at our Pulpit Rock location. During MegaMeet there will be telescope training with Ron Kunkel on Friday June 27 and Saturday June 28. (Frank Lyter will also be on hand for this.- *editor*)

Star Party Coordinator- Aiden Berger:

- The next star party of the 2025 season is coming up on Saturday May 3, 2025 at our South Mountain Headquarters at 7:00 p.m.
- I am looking for volunteers to give a presentation on a topic of their choosing at our upcoming star parties! Whether you're fascinated by black holes, planetary exploration, the search for extraterrestrial life, or even the history of space missions, this is a great opportunity to engage with fellow enthusiasts and spark meaningful discussions. No prior experience with public speaking is necessary—just a love for the cosmos and a willingness to share your insights! Presentations can be as formal or as casual as you'd like, and we're happy to provide any support or resources you may need. The presentations will be held at 7 p.m. in the Grady planetarium. If you wish to volunteer, my contact information is on our website.

Next General Meeting:

- The next general meeting will be at South Mountain on Sunday May 4, 2025 at 7:00 p.m.

The meeting was adjourned at approximately 9:00 p.m. The April general meeting was recorded.

Submitted by Beth Julius, Secretary

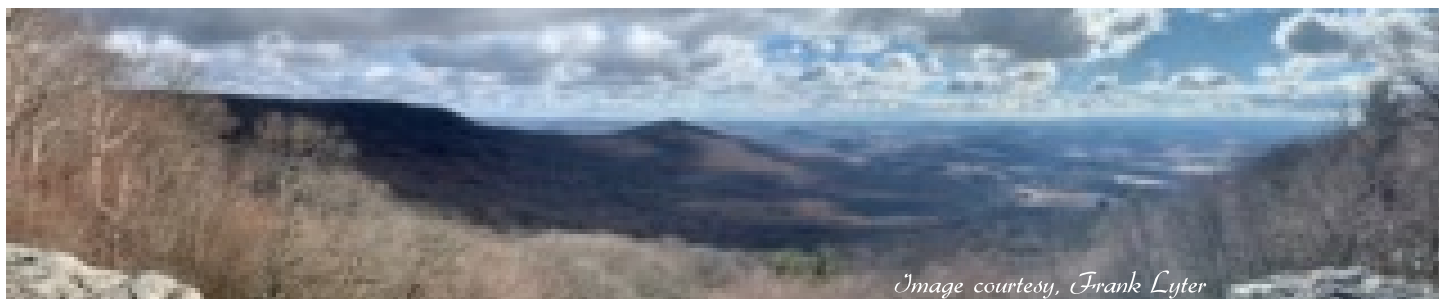


Image courtesy, Frank Lyter

Via Sandy Mesics, Programs Chairperson

Upcoming LVAAS General Meeting Speakers

May: **Brian Kloppenborg** from the AAVSO will speak via Zoom on AAVSO Citizen Science.

June: **Gary A. Becker** and **Peter Detterline** will speak in person, on Aurorae

July: **Linda Prince** will speak in person; topic TBA.

August: **Brett Fadem** and **Jonathan Cuadra** will speak in person; topic TBA.

September: **Joe Zitarelli** will speak in person on The Expanding Universe.

October: **Mike Huber** will be back in person to do 1913 Astronomy, Part 2

Speakers are still needed for November and December

- ▶ Please contact astrosandy@gmail.com if you have ideas for speakers, or would like to do a talk yourself.

THANK YOU, LVAAS VOLUNTEERS!

LVAAS Star party Director **Aidan Berger** would like to thank the following members for their help with the April star party: **Earl Pursell, Bill Dahlenburg, Benjamin Long, John Bonaventure, Bruce Balthaser, Mike Clark, Bill and Ruth Lodder, Kyle Kramm and Tom Duff**, with a special shout-out to **Joe Zitarelli** for doing the presentation, and also to **Becky Frank** for running the Red Shift. Thanks so much everyone!

Via Benjamin Long, LVAAS Director

LVAAS is in the process of re-keying the locks on our properties. If you haven't picked up your **free replacement keys**, please contact the "Key Coordinators" listed on our website's Contacts page to do so.

Via Rich Hogg, Website and Technology Director

Recently a meteorologist from a nearby news station visited the part of the Appalachian near our Pulpit Rock location and it was televised locally. It does contain some errors w/r to details, but it was a nice nod to our beautiful facilities on the mountain. Click the button to watch.



Via Eric Loch, Public Relations Director

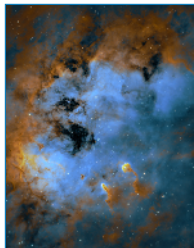
LVAAS members are invited to the Lafayette College Theater Department's upcoming production of **Silent Sky** based on the life of astronomer Henrietta Leavitt. <https://theater.lafayette.edu/event/silent-sky/>



Via Earl Pursell, UACNJ Liason

Public Program Nights and weekly star parties have resumed at United Astronomy Clubs of New Jersey. There will be a 30-60 min talk every Saturday from the beginning of April until the end of October. Anyone who would like to give a talk is welcome to contact Chris Callie (reddog176@gmail.com).

UACNJ also has its own YouTube channel and the schedule of videos is on its website. Please visit uacnj.org to watch and/or subscribe.



cover: IC 410, The Tadpoles Nebula in Foraxx Palette

imager: John Kmetz

Equipment: C925 EdgeHD with 0.7X FR (1645mm FL)

Astronomik 6nm Ha filter (9.75 Hrs.)

Antlia 2.5nm OIII filter (4.4 Hrs.), and Astronomik Deep Sky RGB filters (0.5 Hrs. ea.), using a ZWO ASI2600MM mono cam @-15C, binned 2x2.

Eagle Scout Court of Honor Award - Claudio T. Stabile - May 3, 2025 12 p.m.

I write to share the good news that on September 19, 2024, aspiring Aerospace Engineer Claudio T. Stabile earned the rank of Eagle Scout, the highest honor in Scouting America.

Claudio's seven year journey to the Eagle Scout Award is one of the most meaningful and transformative experiences a young person can have. As an Eagle Scout, Claudio has learned valuable life skills, provided leadership to his fellow scouts as Senior Patrol Leader, made lifelong friends, and learned the value of giving back to his community. He developed a love for nature and conservation through monthly camp-outs, and used scouting as a vehicle for progressing science and astronomy, with Astronomy and Environmental Science being his favorite earned Merit Badges.

As a family member of the Lehigh Valley Amateur Astronomical Society, Claudio has nurtured his love for astronomy through numerous scout camping weekends, access to advanced astronomical equipment, and a supportive community eager to share their knowledge and experience. Claudio has been able to utilize these resources and share them with his local community and beyond.

For his Eagle Scout project, Claudio built an Astronomy Observatory at the Polk Township North Field, with Polk Township as the service project beneficiary, providing monthly nighttime sky observations and daytime solar programs to members of the community and beyond. He received support from the Lehigh Valley Amateur Astronomical Society with a 10" Meade LX200 telescope, and was awarded the 2023 Charlie Bates Solar Astronomy Project sponsorship of the year with a 90mm Solarmax III Hydrogen Alpha solar telescope. With his new organization, Astronomy in the Community, Claudio is able to share this equipment with his community along with traveling presentations throughout the Northeastern United States, and wherever life and opportunity takes him.

The Scouting experience has also inspired Claudio's future aspirations. Through his emphasis on science as a scout, he is now planning to pursue a degree in Aerospace Engineering and to continue to provide his talents for the betterment of humanity. He is currently considering offers from Penn State, Clarkson University and Embry-Riddle School of Aeronautics.

The court of honor will be held at 12:00 p.m. on Saturday, May 3, 2025 at the American Legion Post 927, located at 646 Fairgrounds Road, Gilbert, PA 18331. Claudio will receive his award at that time. Please plan to attend if you're able.

If you're unable to attend, may I humbly request that you send a brief letter of congratulations? As a special surprise for Claudio, we are preparing a collection of these letters to display at the event and present to Claudio. I know he would be honored and delighted to see your comments included.

Thank you for your time in reviewing this letter and considering our request — and for all you do to support and uplift our youth.

Sincerely,

Claudio M. Stabile

Proud parent and Treasurer, Troop 102

LVAAS Scouting Activities Coordinator

(646) 515-3441





2026 LVAAS Youth Sponsorship Program

Proudly Administered by
Astronomy in the Community



The Lehigh Valley Amateur Astronomical Society is pleased to introduce the first annual LVAAS Youth Sponsorship Program for 2026, proudly administered by Astronomy in the Community.

To give back to our LVAAS community for your support during 2023 and 2024, Claudio T. Stabile and Ava Stabile, founders of Astronomy in the Community, proposed this initiative to provide similar opportunities to future youth members.

This astronomy project focused program aims to foster astronomy interest among young LVAAS members by providing financial and in-kind support for ambitious astronomy related projects. By recognizing and rewarding their dedication, we inspire future generations of astronomers within our community.

One applicant will be selected in January 2026 and awarded a \$1,000 monetary grant along with support from LVAAS members to accomplish their project. The program is open to LVAAS members in good standing, up to 25 years old, having volunteered at a minimum of 4 LVAAS events in 2025, and with a strong astronomy project proposal. The application deadline is January 16, 2026.

Applications open September 1, 2025. In the meantime, volunteer, gather ideas and put together your best presentations!

For more information, please visit <https://lvaas.org/page.php?page=YouthSponsorshipProgram>



LVAAS MegaMeet 2025 Announcement

June 27-29, 2025



MegaMeet is LVAAS's 'bare bones' star party, without vendors, speakers or registration fees. Members of LVAAS as well as members in good standing of regional amateur astronomy clubs are invited to attend.

MegaMeet attendees can either come for evening observing sessions or camp for the weekend. Camping is encouraged; space is limited. Hot dogs, chips and soda will be available for purchase.

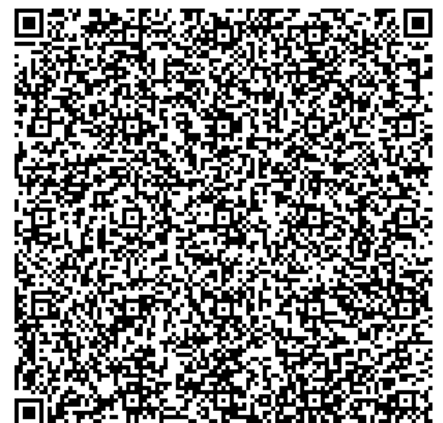
Telescope Training: Frank Lyter and Ron Kunkel will be on hand to train members on our club's telescopes June 27 and June 28.

Rain Date August 8-10; please check lvaas.org

Location: Pulpit Rock Astronomical Park
tom.julius@lvaas.org (610) 751 6606

Scan the QR code ➡
to add this event to your calendar.

Hope to see you there!





Peter Detterline's
Night Sky Notebook
May 2025



While you're here,
why not subscribe?

Volunteerism Runs in the Family - the Kunkel Family, that is



Dillon (8) uses his rake to clean up debris while Colton (11) rolls logs off the road in the background.



Colton uses a blower to remove sawdust from the road as Dillon watches. Thanks SO MUCH, guys; great job!



When a huge oak tree came crashing down on the road leading to Pulpit Rock this past April, it wasn't long before LVAAS PR Maintenance Director Ron Kunkel showed up with two of his grandkids, Colton and Dillon, to deal with the cleanup. A lot of hard work went into this project, and we owe our thanks to the Kunkels for quickly reestablishing access to our precious dark sky site.

Volunteerism, which grows from generosity and altruism, needs to be cultivated to produce results, and Ron is doing just that with these two perhaps future LVAAS PR Maintenance directors. (If you don't know Ron, here he is telling the baby copperheads to watch out for humans on the rocks.) He's a great resource for all things Pulpit Rock. Stop by and say "Hi!"



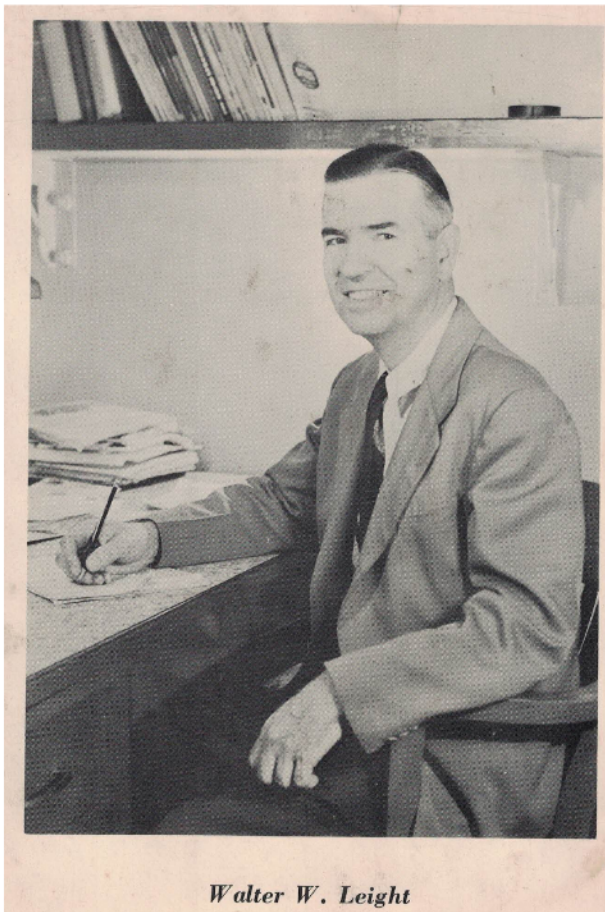
Renaissance Man: Walter Leight, Part 1

By Sandy Mesics

Of the many exceptional people who have been LVAAS members over the years, few were as exceptional as Walter Weaver Leight. Leight was born in 1909 in Philadelphia. A true Renaissance man, he had many interests and talents that included amateur astronomy, telescope making, writing, toy making, and camera making, as well as being an organist, a violinist, and an accomplished violin maker. Over the ensuing 90 years he would work as a junior accountant, proofreader, movie film processor, optical worker for the government and an engraver.



His interest in astronomy began at age 10 when he built his first telescope. "I've built 30 or 40 since then." (Morning Call 9/22/1970) He began making violins when he was 14 years old and wanted a better violin than he was using at that time. He found a book on violin making in a bookstore, and by the end of his life he had built over 100 violins. He gave many of these to friends or to schools, but never sold one.



Walter W. Leight

Leight was a meticulous record keeper. Beginning in 1920 he kept notebooks on his observations and diary entries. There were four notebooks by 1975. The following are many of the entries in his notebooks.

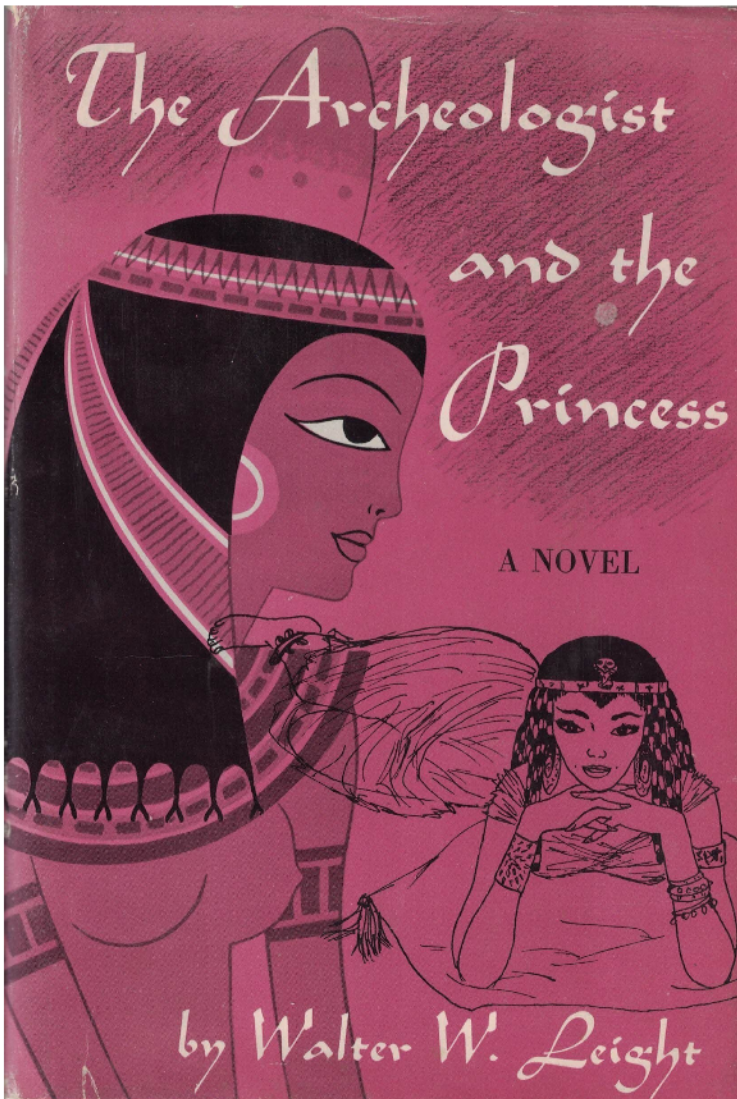
He built his first telescopes from high quality spectacle lenses. In 1924 he observed Mars during its closest opposition in a century. In high school he acquired a dismantled 10-inch Brashear which he reconstructed into a usable instrument. In 1933 he started using the 18-inch Brashear refractor at the University of Pennsylvania's Flower Observatory. In 1934 he began grinding his own mirrors, starting with a 4-1/2 optic and moving to 6-inch and 10-inch diameters. In 1938 and 1939 he began photographing the Moon and planets.

On May 9, 1936, Leight married Clarissa Benham, who was a secretary for the Asten-Hill Manufacturing Company in Philadelphia. Their only child, daughter Gloria, would be born in 1942.

Interestingly on July 3, 1939, he observed a Martian canal with his 4-1/2 f-11 reflector and noted that this feature was also seen by his wife and neighbors. About the same time, probably not coincidentally, Leight began corresponding with John Mellish, the astronomer/telescope maker (see the December 2024 *Observer* for more information about John Mellish). According to Leight, "His [Mellish's] letter of January 18, 1935, mentioned the craters and mountains of Mars as seen by Barnard as early as 1892-3 at Lick with

the 36-inch refractor. Mellish's own crater drawings were made in 1915-16 with the 12-inch and 40-inch telescopes at Yerkes Observatory." (*Observer*, May 1975)

Just prior to World War II Leight passed the Civil Service examination and started working at the Frankford Arsenal as a precision optical worker making optical flats and engraving reticles. World War II curtailed his amateur astronomy activities until 1944, when he built an 8-inch Cassegrain telescope and a 4-inch Cassegrain which appeared on the cover of the January 1946 issue of *Sky & Telescope*. His three-year-old daughter Gloria was shown observing through the scope. With the war over, in July 1945 Leight acquired a 19-inch blank of 1.25-inch thickness which he began grinding. He completed figuring at the end of 1945. Also, in the immediate postwar period he completed specialty scopes: a 2-1/2-inch solar scope, a solar camera, and an 8-inch Cassegrain.



In late 1949 the Leights moved from Philadelphia to Center Valley where they constructed a home on a 2.4-acre lot. A few years later, Walter began planning a backyard observatory. He made a dozen schematics over a seven-year period before construction began in April 1959. In the meantime, he completed the tube assembly and mount for the 19-inch scope and continued to make a variety of unique telescopes, including a folded refractor, another solar telescope, and a "lunch box" folded refractor. Leight also had Mellish build him an 11-inch achromatic objective, which Leight finished as a folded refractor. This would be mounted under the dome of his home observatory and see heavy use throughout the years.

In 1957 Leight published his book, "The Archeologist and the Princess," a lighthearted tale that started as a fairy tale Leight told to his daughter Gloria. In fact, when the book was published, the book jacket illustration was done by Gloria, who was then a junior at Southern Lehigh High School.

Next month we will pick up the story in 1958, when Leight joined the fledgling Lehigh Valley Amateur Astronomical Society.

References

The Allentown *Morning Call*, September 22, 1970

The Observer, May, 1975 and December 2024

From The Library ~ Joe Zitarelli

In the summer and early fall I participated in a Zoom course on astronomy entitled "Adventures in Astronomy: Approaching Infinity." I watched it along with other LVAAS members to see if it was something worth viewing. It is an interactive first course in astronomy with a target audience of high school science teachers to be better prepared to teach the subject. The course also targets high school students with an interest in the subject who do not have an available astronomy course at their school. The course is not taught by PhD astrophysicists, rather by an amateur astronomer with an interest in teaching the subject. The course is quite appropriate for adults with an interest in learning more about a wide range of topics in astronomy. The course is held weekly on Tuesday nights at 7:30 p.m. They usually start with a brief review and any questions from the previous week, then spend about an hour on that evening's topic, and finally end with a question-and-answer period. It is given over Zoom, and all participants are welcome and encouraged to ask questions. The cost of the course is \$100 and you can attend as many or as few sessions as you like. The slides for each lesson are provided beforehand and a video is posted a few days after each session. The schedule for the next session is:

Class number	Date	Topics
1	1/14/25	Intro, Geo-centrism, Kepler's laws, the Kepler-Newton law, the scientific method
2	1/21/25	Eclipses, tides, solar system formation, planet tilts & density
3	1/28/25	Rocky & giant planets, moon, escape velocity, planet atmospheres, the greenhouse effect
4	2/4/25	Determining Earth's age, comets, asteroids, distances using parallax
5	2/11/25	Distances using cepheid variable stars; M31 is a galaxy!, sun, fusion, the Hertzsprung-Russel diagram
6	2/18/25	Identifying atoms in stars; star characteristics, luminosity, element creation & supernovae
7	2/25/25	Neutron stars, black holes, pulsars, professional telescopes, building the Extra Large Telescope (39 meters)
8	3/4/25	Radio & space telescopes; Observing the sky: stars, moving groups, Mars, the moons of Saturn & Jupiter
9	3/11/25	Galaxy classification, active galactic nuclei, blackbody & synchrotron radiation, the cosmologic redshift
10	3/18/25	The Hubble-Lemaitre law, dark matter, the cosmologic principle, special relativity
11	3/25/25	General Relativity & its proofs, gravitational waves, the cosmic microwave background radiation
12	4/1/25	Women astronomers, Universe age, size, early years & expansion. Does it have an edge? The Big Bang
13	4/8/25	Fate & density of the U; proportions of normal, dark, and energetic matter; inflation; the 4 forces of nature.
14	4/15/25	Habitable exoplanets, astrobiology, the lifetime of K type stars. Are ETs out there?
15	4/22/25	Are ETs on Earth? #1
16	4/29/25	Are ETs on Earth? #2
17	5/6/25	Highlights of the course & informal discussion

While I don't feel the course is perfect, I don't know of any other comprehensive, interactive courses on Astronomy at this price point. For more information or to sign up go to <https://www.astronomyteacher.net/>

Books, Books, Books

We have been approached by Princeton University Press and offered a 30% discount as members of LVAAS for any of their books on Astronomy. For starters they recommended the following:

- [Hidden in the Heavens: How the Kepler Mission's Quest for New Planets Changed How We View Our Own](#) (2024) : click [here](#)
- [The Sky Is for Everyone: Women Astronomers in Their Own Words](#) (2023) : click [here](#)
- [Back to the Moon: The Next Giant Leap for Humankind](#) (2022) : click [here](#)
- [A Traveler's Guide to the Stars](#) (2024) : click [here](#)
- [The Little Book of Exoplanets](#) (2023) : click [here](#)
- [Stars and Planets: The Most Complete Guide to the Stars, Planets, Galaxies, and Solar System – Updated and Expanded Edition](#) (Princeton Field Guides series, 2017) : click [here](#)
- [Welcome to the Universe in 3D: A Visual Tour](#) (2022) : click [here](#)

If you are interested in purchasing any of these or other Astronomy books contact me at library@lvaas.org and I will send you the discount code. Or if you would like me to consider purchasing any of these titles for the library, let me know.



May Day

My father was born on the Celtic festival day of Beltane, May Day, May 1, 1919, but it would take me into my teaching days before I realized its astronomical significance. We all knew about the Celtic celebration of Halloween, commemorated on the final day in October, when the veil that was supposed to divide the living from the dead thinned to where it was possible for the spirits of the underworld to pass into the realm of the living. Then there was Candlemas, celebrated on February 2, which had Christian roots and represented the presentation of Jesus at the Temple in Jerusalem by Joseph and Mary, as well as the time when candles to be burned during the course of the year were blessed, again representing Christ as the light of the world.* The secularization of Candlemas in Europe and America produced Groundhog Day, where the burrowing badger or groundhog had a predictive understanding of the beginning of springtime by examining the burgeoning roots in its underground dens. Finally, there was Lammas Day, on August 1, also known as Lughnasadh, another Celtic festival where the sun god Lugh was wedded with the Earth, commemorating the ripening of crops and the first harvest of the summer wheat.* What did all of these holidays have in common, astronomically? They represented the cross-quarter days, the midpoints between the solstices, the high and low sun, and the

equinoxes when the sun was positioned over the Equator: February 2, May 1, August 1, and October 31.* If Halloween represented the defeat of death for yet another year, then May Day was in tribute to the rebirth of life, love, and fertility after the passing of the dark, cold winter season. In medieval Europe, celebrations involved fairs and feasts. The youth of small villages gathered at sunrise in the town square to choose a young girl who would become the "Queen of the May." Her young admirers transported the queen, decked with a garland of flowers, by cart in parade-like fashion to the maypole, which has become synonymous with celebrating this cross-quarter day. The pole, painted in bright colors, had long ribbons attached to it. Celebrants would take hold of the colorful streamers, singing as they skipped and danced around it, wrapping the ribbons tightly around the pole until the raucous participants came together in a large heap of humanity.* Ironically, in the 1950s, to culminate the end of the Allentown School District's playground season, the maypole activity was the concluding event, as scores of groups from all over the city gathered at the Allentown Fairgrounds to celebrate the end of another summer. Someone got their Beltane and Lammas celebrations confused. We are now halfway to the summer solstice. Hallelujah! Ad Astra!

May 2025
10:00 p.m.

This circular star chart displays the night sky for May 2025 at 10:00 p.m. The chart is centered on the celestial equator and shows various constellations and planets. The constellations are labeled in red text, and the planets are labeled in yellow text. The chart is oriented with North at the top, South at the bottom, East on the left, and West on the right. The constellations shown include: Perseus, Cassiopeia, Cepheus, Cygnus, Lyra, Hercules, Corona Borealis, Bootes, Canes Venatici, Ursa Major, Ursa Minor, Camelopardalis, Auriga, Gemini, Cancer, Leo, Leo Minor, Sextans, Hydra, Crater, Corvus, Virgo, Coma Berenices, Serpens Caput, Ophiuchus, Libra, Centaurus, Antlia, Pyxis, Monoceros, Canis Minor, and Lynx. The planets shown are Jupiter (Jupit) and Mars (Mars).

Contributed by Gary A. Becker

HURRY! LAST CHANCE!

The LVAAS 2025 Calendar is **REDUCED! Now \$10**

Explore the Universe All Year Long!
Your Guide to the Night Sky in 2025



What's Inside?

- Club Events: Dates for star parties, meetings, and other events.
- Astrophotography: Incredible images contributed by our talented members.
- Significant Astronomical Dates: Meteor showers, conjunctions, eclipses, and more.
- Viewing Highlights: Best times to see planets, galaxies, nebulae, and more!

Why You'll Love It:

- Perfect for planning your stargazing sessions.
- Supports our local astronomy club and outreach.
- A must-have for beginners and seasoned astronomers alike!

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	29	30	31	1	2	3
			New Year's Day M 41		Heart Shaped Cluster Quadrantid Meteor Shower Jupiter 0.7% of Moon Uranus 1.4% of Moon	Saturn 0.7% of Moon Uranus
5	6	7	8	9	10	11
	GI 2024 (NGC 132)		Talk in the Tail of the Dog Trifid Nebula and Mercury 5% apart	Closest Face Nebula Lagoon Nebula and Mercury 86' apart M 21 and Mercury 57' apart Polaris 0.3% of Moon Venus at Greatest Elong 40.7%		M 42 Cassini
12	13	14	15	16	17	18
General Meeting 10PM at M 40 M 28 and Mercury 1.1' apart	NGC 2024 (ATLAS) Closest 1/2024 G3 (ATLAS) Moon and Mars 1.1' apart Polaris 2.1% of Moon	M 22 and Mercury 6.9' apart	NGC 2407 Mars at Opposition	Regulus 2.2% of Moon		Saturn and Venus 2.2' apart Venus 2.2% of Saturn
19	20	21	22	23	24	25
Observer Submission Deadline	Martin Luther King Jr's Birthday M 40 Zeta Centauri Spica 0.1% of Moon			Mars 2.3% of Polaris	Antares 0.3% of Moon	
26	27	28	29	30	31	
BOG Meeting Reserve Chairs	Winter Star Party M 73 and Mercury 11' apart	Winter Star Party	Winter Star Party M 67	Winter Star Party	Winter Star Party Saturn 1.1% of Moon Orion	

Order Your Calendar Today!

Send an email to mhuber614@gmail.com
with subject "Astronomy Calendar Order"

Only a few calendars remain available for purchase at LVAAS South Mountain Headquarters.
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MAY 2025

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				National Day of Prayer 01	02	Star Party 03
First Quarter Moon 04 General Meeting 7:00 PM South Mountain	Cinco de Mayo 05	06	07	08	Stargazers Group Meeting 09	10
Mother's Day 11	Full Moon 12	13	14	15	Scout Camping at Pulpit Rock 16	Scout Camping at Pulpit Rock 17 Astroimaging Meeting - 7:00 PM
Scout Camping at Pulpit Rock 18 Deadline for submissions to the Observer	19	Last Quarter Moon 20	21	22	23	24
LVAAS Board of Governors Meeting 25	Memorial Day 26	27	28	29	30	31

JUNE 2025

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
01	02	First Quarter Moon 03	04	05	Scout Camping at Pulpit Rock 06	Scout Camping at Pulpit Rock 07 Star Party
Scout Camping at Pulpit Rock 08 General Meeting 7:00 PM South Mountain	09	10	Full Moon 11	12	Stargazers Group Meeting 13	Astroimaging Meeting - 7:00 PM 14
Father's Day 15	16	17	Last Quarter Moon 18	Juneteenth 19	Cherry Springs Star Party 20	Cherry Springs Star Party 21 Summer Solstice
Cherry Springs Star Party 22 Deadline for submissions to the Observer	23	24	25	26	Mega Meet 27	Mega Meet 28
Mega Meet 29 LVAAS Board of Governors Meeting	30					

2025 LVAAS EVENT CALENDAR

Contributed by Bill Dahlenburg

2025 LVAAS Event Calendar											
	<u>Sundays</u>			<u>Saturday</u>			<u>Observer</u>	<u>Moon Phase</u>			
	General Meeting time/date	location	Board meeting	Astro- Imaging	Star Parties	Stargazers Group	Submission Deadline	New	1 st	Full	3 rd
January	3:00 PM 12	Muhlenberg	26	no meeting	no meeting	no meeting	19	29	6	13	21
February	3:00 PM 2	Muhlenberg	23	no meeting	no meeting	no meeting	16	28	5	12	20
March	3:00 PM 9	Muhlenberg	30	no meeting	8	14	23	29	6	14	22
April	7:00 PM 13	S.M.	27	26	12	11	20	27	5	13	20
May	7:00 PM 4	S.M.	25	17	3	9	18	27	4	12	20
June	7:00 PM 8	S.M.	29	14	7	13	22	25	3	11	18
July	5:00 PM 12 (13)	S.M.	27	19	5	11	20	24	2	10	17
August	7:00 PM 9 (10)	Pulpit	31	16	2	8	24	23	1 31	9	16
September	7:00 PM 14	S.M.	28	13	27	12	21	21	29	7	14
October	7:00 PM 12	S.M.	26	11	25	10	19	21	29	7	13
November	7:00 PM 9	S.M.	30	15	29	14	23	20	28	5	12
December	2:00 PM 14	?	28	13	no meeting	no meeting	21	20	27	4	12

July, Aug & Dec are Saturday meetings with rain date on Sunday
 Jan, Feb & March meetings are at Muhlenberg College
 August meeting is at Pulpit Rock
 December meeting / Holiday Party (TBD)

NEAF 4/5 – 4/6
Mega Meet 6/27-6/29
CSSP 6/19 – 6/22
Stellafane 7/24 – 7/27
BFSP

Publishing images is a balancing act!

When preparing your images for publication in *The Observer*, please consider the following guidelines:

Put the quality in:

- ▶ Considering the "print" size of the image, make sure you have at least 150 pixels/inch.
- ▶ Use a reasonably good quality for the JPEG compression ratio.

But watch the "waistline"!

- ▶ Don't go too much above 400 pixels/inch max.
- ▶ Use the lowest JPEG quality that still looks good!
- ▶ Shoot for 400kb for a 1/2 page image or 1MB for a full page.

Tip: If you're not Photoshop-savvy, you can re-size and compress undemanding images ("human interest" not astroimages), with an online tool such as:

<https://imageresizer.com/resize/download/6779bd945d63ac1a3032f37d>

It will also tell you the pixel size and file size of your original, even if you don't download the processed copy.

The Observer is the official monthly publication of the Lehigh Valley Amateur Astronomical Society, Inc. (LVAAS), 620-B East Rock Road, Allentown, PA, 18103, and as of June 2016 is available for public viewing. Society members who would like to submit articles or images for publication should kindly do so by emailing *The Observer* editor, France Kopy, at observer@lvaas.org.

Astroimaging Director, Tom Duff is our new Astroimaging editor, and welcomes all image submissions.

Articles submitted prior to the Sunday before the monthly meeting of the board of governors (please see calendar on website) will appear in the upcoming month's issue. Early submissions are greatly appreciated. PDF format is preferred. Articles may be edited for publication. Comments and suggestions are always welcome.

LVAAS members please feel free to submit ads for astronomy equipment you have for sale, and additionally you may sponsor a maximum of three ads from non-members per year. Please submit your finished ad as a PDF, with pictures and text. Every attempt will be made to include submissions in a timely manner.

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