



May, 2022

June Meetings

Most in-person meetings will now begin returning to the Quonset Meeting Hall. If a virtual meeting is called, an email invitation will be sent to the membership by email.

The next **Board Meeting** will be held on **Monday, June 20** at 7 PM **in person at the Quonset Meeting Hall**. This will be the first in person MAS board meeting of 2022, and going forward until further notice. All members are welcome to attend our Board Meeting with an interest in club happenings and news!

There will be no Membership Meeting following the board meetings starting now through August. Preparations are underway for speakers, topics and presentations. Please contact any of our MAS officers if you have ideas, questions or speaking opportunities you've got in mind for the year!

The **First Wednesday** meeting will be held this week in person at the Observatory grounds on **Wednesday, June 1** at 7:30 PM. New members are especially encouraged to attend this meeting. It is a chance to gain hands-on experience, receive tips on how to get started and/or get more involved in the Club's activities.

The **Astrophotography Interest Group** will not be meeting this month; however, any members who wish to participate in an imagers group forum should contact the [Matthew Ryno](#) for an invitation to a Southeastern Wisconsin Astro Imagers Slack group, where conversations continue on imaging day and night. A virtual meeting may be re-established at a future date.

Our first **MAS Open House** will be during the day on **Saturday, June 18**, from 1 PM to 4 PM, and will concentrate on solar observing, Sirius and a presentation about the sun. If you have an interest in volunteering to help present the sun to the public, please contact [Colin Boynton](#) or [Sue Timlin](#) for more information!



Total Lunar Eclipse, Arun Hegde, ZWO ASI2600MC Pro.

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Bonus Coverage:

Enjoy the NCRAL Vision 2022 Recap from the Northern Cross Science Foundation.
[Read More >](#)

From the Editor

In my first edition as Editor, I'm pleased to carry on the tradition of publishing the *Focal Point* Newsletter, after Tamas Kriska took the role in 2011. I am also a newly elected MAS Secretary, Board Member, Social Media Coordinator and Membership Chair. I see the role of Editor as a complementary fit, given my journalism degree and work as a daily newspaper reporter for a number of years before switching careers to technical writing, and currently marketing operations. As our former Editor and MAS President has shown, multiple roles for the MAS can be rewarding, while bringing you closer to club activities, members and events, which I enjoy and hope to document. Since this newsletter is about all of us, I will always look to you, our MAS members, to continue contributing to our ongoing record of events, activities, posts and articles. Please contact me by email any time at mattryno@gmail.com with ideas, news, photos or articles!

Matthew Ryno,
Focal Point Editor

Observatory Director Report

Donation: Lee Keith has donated his ZWO 290 MC planetary camera and a new eyepiece to replace the missing 12mm eyepiece in the C Shed. Thanks Lee!

As to the selling of the equipment from the upgrading of the G and F scope. The following has been sold:

- The off-axis guider, \$183
- Guide camera, \$400
- OIII 3nm filter \$385
- SII 5nm filter \$185
- ZWO filter wheel \$220

Spring Clean-up of the Observatory is set for May 28th, the last Saturday of the month. Reminders will be sent out through the MAS Google Group!

Respectfully Submitted,
Paul Borchardt, Observatory Director

Treasurer's Report

\$11,526.12	Starting Balance as of 04/16/22
	<u>Expenditures</u>
\$25.49	PayPal fees
\$645.88	Periodic Expenses
\$86.52	WE Energies
\$757.89	TOTAL Expenditures
	<u>Revenue</u>
\$248.00	Membership dues
\$1,155.00	Other Revenue
\$1,409.00	TOTAL Revenue
\$12,177.23	Ending Balance as of 05/14/2022

Respectfully Submitted,
Sue Timlin, Treasurer

Minutes

The last Board Meeting was held via Zoom videoconference on May 16th. Meeting was called to order at 7:03 PM by Tamas Kriska President.

Minutes and Treasurer Reports electronically submitted ahead of the meeting were approved. **Observatory Director Report** electronically submitted by Paul Borchardt Observatory Director ahead of the meeting was approved. **Membership Committee Report** was electronically submitted by Matthew Ryno Committee Chair ahead of the meeting. The membership applications of Adrian Knowles, Abhinay Pachapur & family, Kathleen Brehmer & family, and Jackson Waite & family were approved.

Old Business – Open House: The presentations are all lined up.

New Business – Open House print asset: The open House Committee requested \$800 earmark to print out MAS brochures (qty 500), inserts to brochure (qty 167), Open House flyers for bulletin boards (qty 75), and maps customized for 4 planned Public Nights (qty 4x50) at Minuteman Press. A discussion has started about the price of the printing, and about the necessity of the number of items. The decision was tabled until the June meeting. **Planetary camera:** To replace the old planetary cameras, Lee donated a ZWO ASI 290 MC (color) camera, and Paul suggested to buy a ZWO ASI 290 MM (monochrome) camera. A motion was made and carried to allocate \$300 for the purchase. The old Skyris cameras will be offered for sale. **MAS Subscriptions:** It was discussed a subscription option for existing members to pay through PayPal could be pursued to simplify renewals this year. Gene Hanson, MAS Webmaster, had noted he will investigate this.

Announcement – The next meeting will be Monday June 20th, 2022.

Respectfully Submitted,
Agnes Keszler, Secretary

Membership Report

Since the last Report we received 4 new membership applications and welcome Adrian Knowles, Abhinay Pachhapur & Family, Kathleen Brehmer & Family and Jackson Waite & Family. The total number of active members is 204.

Respectfully Submitted,
Matthew Ryno, Membership Chair

Annual Membership Meeting

The **Annual Business Meeting** was held via Zoom videoconference on May 16th. The meeting was called to order at 8:03 PM by Tamas Kriska, President. Motion was made and carried to declare a quorum. Election of Directors to the Board of Directors: Clark Brizendine's and Steve Volp's 2nd term, and Gabe Shaughnessy's and Mike Wagner's 1st term in the Board of Directors have expired.

Board of Directors: Nominations from the floor: William Gottemoller, Matthew Ryno, Sue Timlin, and Mike Wagner. The voting was carried out in bulk via voice vote. All nominees were elected.

Election of Observatory Director: Nomination from the floor: Paul Borchardt. The voting was carried out via voice vote. The nominee was elected.

Election of Officers: The new Board of Directors elected Officers. There was one candidate for each position, and the election was performed by voice voting in the following order:

Treasurer: Sue Timlin

Secretary: Matthew Ryno

Vice President: Sue Timlin

President: Jill Roberts

After the election Brian Ganiere thanked the outgoing Secretary Agnes Keszler for her service of 11 years, and the outgoing President Tamas Kriska for spearheading the Quonset renovation and revitalizing the Club. He also thanked him for serving as Newsletter Editor for more than 11 years.

Program: Celeste Keith gave a presentation entitled Black holes: from tiny to supermassive. The meeting was adjourned at 9:25 PM.

Submitted by Agnes Keszler, Secretary

Welcome our New Officers!

Pausing during a brief rain shower while cleaning up the club on May 28, newly elected MAS officers socialized and reviewed the MAS Bylaws and rules of order, presented by longtime member and former MAS officer, Brian Ganiere. The discussion was lively and included chat on past experiences and meeting etiquette. Brian presented applicable sections from *Robert's Rules of Order, Newly Revised, In Brief* and provided each officer with a copy. Officers discussed transitioning back to in person meetings from all virtual settings, characteristics of a lively meeting, as well as tips for efficient meetings.



Discussing Procedures: MAS President Jill Roberts; VP and Treasurer Sue Timlin; Observatory Director Paul Borchardt; Assistant OD Lee Keith; in a discussion led by Brian Ganiere. Not pictured: Secretary, Matthew Ryno.

Thank You for Your Service!

Tamas Kriska and Agnes Keszler

With the election of new board members and officers, the MAS Board of Directors took a moment during the Annual Meeting to congratulate and thank Tamas Kriska for his role of President and Newsletter Editor; as well as Agnes Keszler, for her role as Secretary. The two had served in their roles for a combined total of 22 years.

Agnes, served as the MAS Secretary for 11 years and Tamas has served as MAS *Focal Point* Editor since 2011, while also serving as the MAS President since 2016.

"Looking back at all those years, it seems like an endless string of work parties. We really enjoyed those," said Tamas, when asked to summarize his thoughts on the years of service.

"Thank you Tamas and Agnes for your perseverance and sacrifice over the years," wrote newly elected MAS President, Jill Roberts.

"Your efforts and accomplishments, especially with coordinating the upgrade of the Quonset building, to many other projects will never be forgotten. I appreciate your time and dedication that you have given to the Milwaukee Astronomical Society. As the new President, I will continue to carry on that dedication, and I look forward to making a difference."

When asked to single out their most important achievement, Tamas noted, it was hard to single out anything.

"The biggest deal was obviously the rebuilding of the Quonset, but it was also just one element of my ultimate goal of moving the Club forward into the 21st century," he said. "And I must emphasize that none of these would have happened without Jeff Kraehnke's tireless work."

When asked, Tamas and Agnes had a few moments to share after putting their heads together to look back on the years:

2015 / 2016

- We organized a big, weekend long work party to clean and re-roof the back garage.
- We hired a contractor to repair the damaged roof of Z-building and replace shingles with rubber membrane.
- Co-organized a month and a half long work party to demolish the old Toeller Observatory and build the current one housing the F-scope.
- A month-long work party to re-build the control room in the Z-building. New hardwood floor, fresh paint, and new drop ceiling were installed. Also, the entryway floor was repaired. In the dome all walls were repaired and re-painted.
- We organized a construction of the Solar observatory and donated the SkyWatcher NEQ6 Pro mount currently holding the two solar scopes.
- For three days we manned a booth at the New Berlin 4th of July Festival & Parade to provide publicity for the Club.
- We organized the biggest project of the last couple decades: a seven-month long journey to completely rebuild the Quonset and the adjacent A building.

2017 / 2018

- Rebuilt the slit operating system of the Z-dome and automated its rotation.
- Organized a Solar eclipse campout.
- A series of work parties to repair and repaint A- and B-dome building walls both inside and outside. Vinyl flooring was installed in A-dome while B-dome's floor was recoated. The inside of both domes was repaired and recoated.
- Work parties to pressure wash the Quonset and apply three coats of rubber roofing and repair and seal the asphalt driveway.

2019

- A month-long work party to rebuild the Zit-observatory: new roof, front wall, door, and siding were installed; repair the damaged Z-dome entrance door.

(Continued on Next Page)

- Coordinating the replacement of the damaged parking lot sign with a custom made professional looking new sign.
- Work party to remove the overgrown trees behind the Z building.

2020 / 2021

- A work party to remove the old concrete main entrance steps to A building. After the new steps were installed by a contractor we installed the hand-railing.
- Work parties to replace the old entrance chain with a more user-friendly gate.
- Initiated the replacement of leaky shingle roof of the A dome with a rubber one done by a contractor.
- A work party to empty and dispose of an old oil tank behind the Quonset Hut.

When asked what their favorite scope on the grounds was, the answer was G-scope.

"It's hard to use it, but amazing image quality can be achieved with it," said Tamas, who was instrumental in installing and testing new imaging camera and equipment on the Celestron EdgeHD 14 telescope.

Look for Tamas and Agnes around the club when you see them enjoying the stars through some of the upgraded scopes and equipment made possible through their leadership.

You may learn a few things about astrophotography or G-scope if you ask, and this author will not forget their lessons in the middle of winter, coming away with a much deeper understanding of perfection when imaging deep sky objects.

As was emphasized during the Annual Membership Meeting, all of us at the Milwaukee Astronomical Society thank them for their service and wish them clear skies!

Astronomical Events

Variable Star of the Month: Y Canum Venaticorum is the AAVSO star of the month, with a red coloration from carbon present in its atmosphere that fluctuates to a pink at the brightest. The star is a semi-regular variable star that changes brightness over a period of 160 days. Look into Canes Venatici, near M94, find Cor Caroli, then jump about 7 degrees northwest.

Markarian's Chain: This is a great time of year to view this string of galaxies in the Virgo cluster, which is an area of the sky with about 2,000 galaxies. Visually, start searching midway between Vindemiatrix in Virgo and the bright star Denebola in the constellation of Leo. After scanning the area, go south for a view of M87, a supergiant elliptical galaxy.

Strawberry Supermoon: On June 14, at its closest the moon will be 223,000 miles from Earth, according to the Adler Planetarium, and will appear slightly larger in the sky as it coincides with the full moon phase.

Summer Solstice: Occurs on June 21, at 4:14 AM CDT, marking the longest daylight hours of the year. This will also be the shortest night of the year if you're looking to stargaze.

Venus: The planet will rise about 100 minutes before sunrise, ENE in Taurus, toward the end of June, with a moon rising nearby, and the Pleiades above.

Mercury: On June 27 a thin waning crescent Moon sits above the planet, but will require patience and a clear eastern view to also glimpse the planet. Although hard to spot, on June 30, 30 minutes before sunrise, the planet will rise to 4 degrees in the NE.

2x Astronomical League Award Winner

Congratulations to William Gottemoller!

The Astronomical League (AL) announced William Gottemoller has won the 2022 Horkheimer/Smith Award (the Astronomical League's highest award for service) and the 2022 Horkheimer/Parker Award for astro imaging. He is only the third person in Astronomical League history to win two different major youth awards and the first to do so in the same year.

The 2022 Horkheimer/Smith Award comes with a cash prize, and an expenses-paid trip to the National Astronomical League Convention in Albuquerque, New Mexico on July 28-30, where he may receive his plaque. The Horkheimer/Parker Award, the AL's highest youth imaging honor, comes with an additional cash prize! The convention will also be providing William with a chance to enjoy, among many other things, a VIP meeting and dinner with Sen. Harrison Schmidt, the geologist who walked on the moon. William will be featured in the September edition of the *Reflector* magazine as well.

As AL Vice President, Charles E. Allen III, noted in the confirmation letter to William: "Your work with both the Milwaukee Astronomical Society, one of the League's charter societies, and your high school club is extraordinary as is your public outreach and your imaging skills. We certainly hope you will keep the Astronomical League in your future as we need bright,

service-minded leaders, especially ones who have a strong background in, and understanding of, astronomy. On behalf of the 22,000 members of the League, congratulations, again, on winning both of these League awards. Keep up your amazing work with the MAS and with your high school club and best wishes to you and your family. I hope we will have a chance to meet you this summer."

William is only the third person in Astronomical League history to win two different major youth awards and the first to do so in the same year.

Matthew Ryno, MAS Secretary, nominated William for the awards with the assistance of Sue Timlin, MAS VP, Treasurer, and AL officer.

The Jack Horkheimer Youth Service Awards are presented to any Astronomical League member who is under the age of 19 on the date of the application.

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Melotte 15, a Region of the Heart Nebula, in SHO, imaged at the Milwaukee Astronomical Society Observatory G-scope, C14 EdgeHD, ZWO ASI6200MM camera. 6x15min H α / 8x15min SII / 8x15min OIII

William flies to ALCON in Albuquerque, NM on July 28th to collect his awards and image under dark skies.

This program recognizes exceptional service by young League astronomers, either directly or through service to any Astronomical League society. Service can be in the form of participating in educational outreach, giving presentations, writing, demonstrating knowledge and skills at public star parties, or conducting other astronomical activities.

As noted in his nomination, after assisting with the installation of our club's new ASI6200mm Pro camera, William not only calibrated and acquired data used in our first light image on G scope, but then also took out a free trial of PixInsight and learned from other club photographers while patiently processing his acquired frames of Melotte 15, to complete the entire acquisition, calibration, and processing stages of astrophotography himself. It is in this context, William Gottemoller's first light Melotte 15 image, was presented for the Horkheimer/Parker Youth Imaging Award.

William is a Junior at Menomonee Falls High School, and is president of his Astronomy club. William applied for an Optimist Club grant that bought Slooh Remote Telescope subscriptions for the MFHS Astronomy Club, and renewed in 2021. Months later, William became a Slooh Space Ambassador, and his enthusiasm has inspired other students to be able to see night sky objects such as Omega Centauri, which are otherwise invisible to teenagers in Wisconsin. William has regularly arranged school field trips to the MAS or Yerkes Observatory, and his enthusiasm has grown the club to one of the larger student clubs at MFHS.

William is now an MAS board member and keyholder. It was no surprise that William donned a turtleneck in honor of his favorite icon, Carl Sagan,

when he led tours through the MAS during our Public Night at the observatory this October. William's presence and help at the observatory is well known, and he has quickly soaked up knowledge of our equipment to become the youngest MAS member who opens the observatory, takes initiative in observatory projects, and assists other members in discovering the cosmos.

"I am extremely honored (and still incredibly shocked) to have received two awards from the Astronomical League," said William.

"Thank you to all of you who were instrumental in this award. The Milwaukee Astronomical Society, first and foremost, is the reason I won the two awards; without it, I would have never become so indulged in astronomy (nor would the MFHS Astronomy Club even exist!), and I never would have been introduced to so many incredible people and so many grand astronomical opportunities!"

William promises to create a log of his trip to New Mexico, and has offered to talk about the experience during a Membership Meeting. He may also be considering getting a telescope mount for his William Optics Redcat 51 telescope, which may come in handy under darker skies soon!



William (back, second from left) with his MFHS Astronomy Club.

A Total Lunar Eclipse at the MAS

An Occultation, Starlink String and a Visual Treat

About 15 MAS members stopped by the observatory on Sunday, May 15, and were rewarded with a reprieve from the clouds hanging around until around at 9:30 PM, for a clear view of the Total Lunar Eclipse at 11:54 PM, with some staying to see the final partial eclipse end at 12:55 AM.

Members looked through the 18-inch Obsession Dobsonian, binoculars or Matthew Ryno's Vixen 90FLs refractor that was set up for members to enjoy. Others took images, and Observatory Director, Paul Borchardt, captured a view of early and late totality from B-scope on the MAS grounds, shared here.

Near around 11 PM, a string of Starlink Satellites whizzed through the northern sky, drawing comments.

Some members noted that the Nearly Total Lunar Eclipse was a little brighter, due to the location of the moon in the sky and atmospheric conditions.

At one point, the moon appeared to move through a line of three bright stars, occulting the middle star. MAS Member, Peter Lakatos, remarked at how a starfield visible behind the moon to give a three-dimensional feel to the sight through an eyepiece, to the agreement of the group.

Later on MAS Member, Marilyn Sameh, researched the star being occulted by the moon. An occultation is an event that occurs when one object is hidden by another object passing between it and the observer.

"I went back to that *Sky and Telescope* article, which called that 6.3 mag star S672. Then I checked the International Occultation Timing Association (IOTA) website, and it gave the designation SAO159317," she said.



Gabe Shaughnessy, Nikon D850, ISO 1600, 3sec exp., Astro-Tech 115EDT

"Stars that lie close to the ecliptic, which passes through the constellations of the zodiac, and which could possibly be occulted by the moon, have a ZC number. ZC stands for zodiac catalog. The ZC catalog number for the star we watched being occulted is ZC2214."

If you are interested, and have the time, you can check out www.lunar-occultations.com/iota and find a list of brighter stars that will be occulted in the future.



Paul Borchardt, with a Canon DSLR at prime focus, push pointing B-scope, at ISO 200, 8 sec.

Spring Cleaning at the Club

MAS Members stopped by the club during a pleasant Saturday on the Memorial Day weekend for spring cleaning.

The sheds and scopes were cleaned, floors and surfaces were tidied and vacuumed.

Landscaping work focused on hauling topsoil uphill, filling uneven portions of ground, seeding and digging up roots. Wild brush was also cleared and piled for a future burn, and hedges were trimmed near the entrances and roll-offs.

Jill Roberts, MAS President, brought food and cold drinks for everyone who volunteered.



MAS at NCRAL 2022

Recap of the North Central Region of the Astronomical League Annual Meeting, Port Washington, WI

After the North-Central Region of the Astronomical League (NCRAL) VISION Conference was first scheduled in May 2020, then cancelled, it was finally enjoyed on May 13-14, 2022 in Port Washington, WI, according to the MAS members who joined the 70 attendees at this event.

The North-Central Region is one of 11 regional districts of the Astronomical League.

Gene Hanson attended NCRAL VISION 2022 because it was easy driving distance. He pointed out that most people are able to drive to the regional conferences and tend to know each other, which is advantageous. Gene also enjoyed the presentations.

"The conference had a workshop on Library Telescopes which is a program of donating small friendly telescopes to libraries so they can be lent," said Gene. "The public is going to be brutal and it requires a series of modifications to make the instrument much more robust. The workshop went through the various fixes and upgrades."

"But the real value of conferences like this," said Gene, "is you get to talk to members of various astronomy clubs, talking to people you already knew and making new friends. It is always my personal goal to ask those members how it's going within their clubs. Are their numbers up or down? But I got a couple of people mention (without being prompted) the difficulty they're having with member retention. It appears to be a universal problem."

Jeff Annis, won an award for an image of Saturn, for the Solar System category of astrophotography, and he also enjoyed the conference.

"The conference was outstanding with many interesting speakers both days," said Jeff.

"Our own Dennis Roscoe gave a presentation about the Webb Space Telescope, Vera C. Rubin, and the Giant Magellan Telescopes," said Gene. "It was in my opinion clearly superior done in person. I think it was the best received presentation of the conference."

Dennis Roscoe, MAS Board Member and Astronomy Instructor at the University of Wisconsin-Milwaukee, Waukesha Campus, presented on "Next Generation Telescopes" and he enjoyed the conference. He was also excited to show off brand new content for his presentation.

"I was able to present the most recent images from MIRI which is now at its operational temperature of 7K. I showed 3 comparison images from Swift, Spitzer and Webb all for the exact same star field and FOV. Webb stole the show," said Dennis. "Thanks to Jim Fanson I gave the most up to date info on the GMT. I released new first light dates (2031 and 2032) that were straight from the horse's mouth."

Dennis said his favorite question was asked about how the James Webb Space Telescope could orbit around an empty point in space.

"Actually, it is one of my favorite questions," said Dennis. "With the magic of multiple force vectors the answer became clear."

The regional conference was held in Port Washington because it was hosted by the Northern Cross Science Foundation. MAS members often use their observatory location on the grounds of Harrington Beach State Park as a dark site location. On Friday evening, conference attendees toured the Jim and Gwen Plunkett Observatory at Harrington Beach State Park.

All MAS members may join the Astronomical League for \$8. Learn more about the AL at www.astroleague.org and [join online](#).



Dennis Roscoe presenting on Next Gen Telescopes.

Adopt a Telescope Program - Signup Sheet

	Adopter	Scope	Location
1	Sue Timlin/John Hammetter	18" F/4.5 Obsession	Wiesen Observatory
2	Steve Volp	12.5" F/7.4 Buckstaff	B Dome
3	Robert Burgess	12.5" F/9 Halbach	A Dome (Armfield)
4	Russ Blankenburg	9-1/4" F/10 Celestron	Albrecht Observatory
5	Jeff Kraehnke	14" F/7.4 G-scope	Z Dome
6	Lee Keith/Tom Kraus	12" F/10 LX200 EMC	Tangney Observatory
7	Colin Boynton	10" F/6.3 LX200	Ray Zit Observatory
8	Tamas Kriska	Stellarvue SVQ 100 F/5.8	Jim Toeller Observatory
9	Paul Borchardt	Solar scope	SkyShed POD

At Your Service

Officers / Staff

President	Jill Roberts	262-765-7092
Vice President	Sue Timlin	414-460-4886
Treasurer	Sue Timlin	414-460-4886
Secretary	Matthew Ryno	414-248-1455
Observatory Director	Paul Borchardt	262-993-8870
Asst. Observatory Director	Russ Blankenburg	262-938-0752
Asst. Observatory Director	Lee Keith	262-875-9103
Newsletter Editor	Matthew Ryno	414-248-1455
Webmaster	Gene Hanson	262-269-9576

Board of Directors

Jim Bakic	414-303-7765
Matthew Ryno	414-248-1455
Jill Roberts	262-765-7092
Sue Timlin	414-460-4886
Jason Doyle	414-678-9110
Dennis Roscoe	608-206-0909
Lee Keith	262-875-9103
Jim Schroeter	414-333-3679
Mike Bauer	262-894-1253
Mike Wagner	262-547-3321
William Gottmoller	262-442-3686

June Keyholders

06/04	Lee Keith	262-875-9103
06/11	Jeff Kraehnke	414-333-4656
06/18	Tamas Kriska	414-581-3623
06/25	Gene Hanson	262-269-9576

July Schedule to be posted soon at
www.milwaukeeastro.org/members/



MAS Observatory

18850 Observatory Rd
 New Berlin, WI 53146

www.milwaukeeastro.org

[www.facebook.com/
 milwaukeeastro](https://www.facebook.com/milwaukeeastro)

SPECTRUM

Northern Cross Science Foundation

June 2022

NCRAL Meeting Informative, Well-attended, Successful

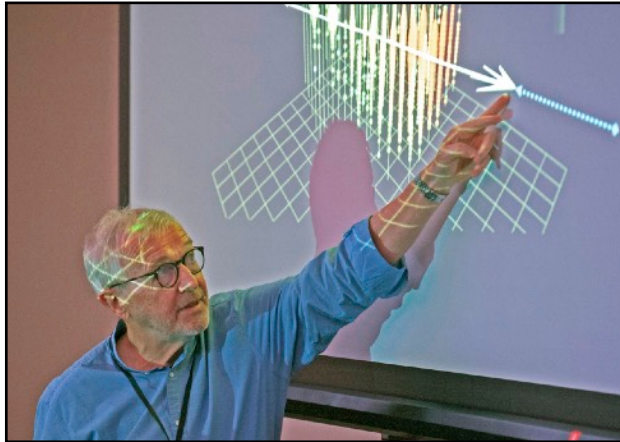
After a two-year COVID delay, the [NCRAL](#) convention was finally held last month. Nearly 70 people, including speakers, registered to attend the conference at the Country Inn & Suites in Port Washington on May 13-14. The Northern Cross Science Foundation was well-represented, with 18 club members and family signed up for the event.



The presentation by keynote speaker Francis Halzen was the main event on Saturday night. Halzen, a University of Wisconsin theoretician, is the principal investigator of the [IceCube Neutrino Observatory](#), a massive instrument based at the geographic South Pole. It uses 5,160 detectors frozen into a cubic kilometer of south pole ice to detect extra-galactic neutrinos. It's been online since 2010 and has generated [hundreds](#) of scientific papers and publications since then.

NCSF Board member Kevin Bert was the lead-off speaker,

See page 2
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Clockwise from top left: Francis Halzen explains results from the IceCube neutrino detector; Jeff Setzer introduces a speaker; Jean Napp of the Iowa County Astronomers views the moon at the Plunkett Observatory; the group listens to Halzen during the Saturday banquet. Ernie Mastroianni photos

NCRAL VISION 2022 Conference: Two Days of Speakers, Activities

From page 1 with a presentation on the history of the [Library Telescope Program](#). He also held a hands-on workshop on the assembly of the Orion Starblast 4.5 inch table-top Dobsonian telescopes.

Setzer also gave a brief presentation on his design of a 3-D printed smart phone eyepiece adapter that allows viewers to make quick photos through a telescope without the lengthy task of locking into the adapter.

Lynda Schweikert, a self-proclaimed novice astronomer from the [Iowa County \(Wisconsin\) Astronomers](#), gave an enthusiastic presentation about how her club welcomes members with all levels of astronomy skill, all with a very laid-back attitude about organization.

[Dennis Roscoe](#), a neurophysiologist as well as an astronomy instructor at the University of Wisconsin-Waukesha campus, spoke primarily about the [James Webb](#) and the Vera Rubin telescopes. On the subject of the Webb, he said "it's made it through the tough stuff and is nearing fully commissioned operation." He updated us on the ground-based [Vera Rubin telescope](#), in north-central Chile and the [Giant Magellan Telescope](#), a ground-based colossus that will have seven mirrors, each which will be nearly 8.4 meters across.

That evening, a many attendees drove north to Harrington Beach State Park to see the Plunkett Observatory and the Panarusky telescope. Although the sky was hazy with approaching storm clouds, the views of the nearly full moon

See page 3

Lightning illuminated distant thunderheads as NCRAL members visit the Plunkett Observatory at Harrington Beach State Park on May 13.



Allen Zielieke, of the Sheboygan Astronomical Society, views the moon through the Panarusky telescope.



Above: Speakers Dennis Roscoe and Lynda Schweikert.

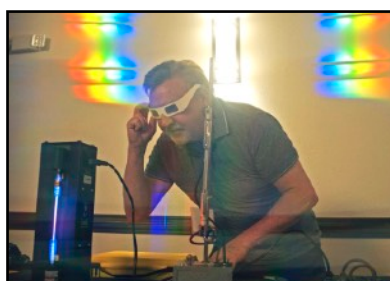
Left: Charlotte and Gene DuPree hand out door prizes.





Left: The NCRAL convention attendees get together for a group photo at the Country Inn & Suites in Port Washington on May 14.

Below: Dave Prosper, of the Astronomical Society of the Pacific, outlined the rich variety of presentations and activities offered by the Night Sky Network.



Above: Jim DeLillo of the NCSF looks through spectrum glasses before John Friedman's talk. The photo was taken through the same type of glasses.

Left: Barry Beaman of the Rockford club and David Philabaum, of the Southeast Iowa club, assemble a library scope.



From page 2 were spectacular. Among the members attending were Ernie Mastroianni, Don Woelz, Gene DuPree, and Katy Zens. A fly-over by the ISS and a distant lightning show made for a spectacular evening.

On Saturday, UW-Green Bay physicist William Dirienzo gave a thorough presentation on the nature of light waves and how the electromagnetic spectrum is observed with different kinds of instruments. universe.

He was followed by UWM professor emeritus [John Friedman](#), who handed out special spectrum glasses that spread out light much like a prism. Friedman explained how the study of emission spectra helps us better understand the composition of stars.

Outreach experts Kate Meredith and Dave Prosper expounded on the myriad ways that

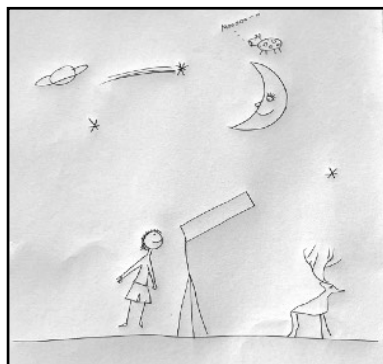
astronomy outreach can connect with people and deliver astronomy education kits. Meredith is president of [Geneva Lake Astrophysics and STEAM \(GLAS\)](#).

[Dave Prosper](#), of the Astronomical Society of the Pacific, told of the many presentations, science kits and online resources that are available to amateur astronomy groups through the [Night Sky Network](#).

Alison Klesman, a senior editor at *Astronomy* magazine, explained to the conference how studying the same objects in different

wavelengths of the electromagnetic spectrum can bring larger insights to the structure of the universe. She earned her Ph.D from the University of Florida studying supermassive black holes in galaxy clusters.

- Ernie Mastroianni



NCSF members Mariah Kazmierski and Mike Borchert won the sketching and deep sky photography categories in the NCRAL convention's illustration contest.

