

April, 2018

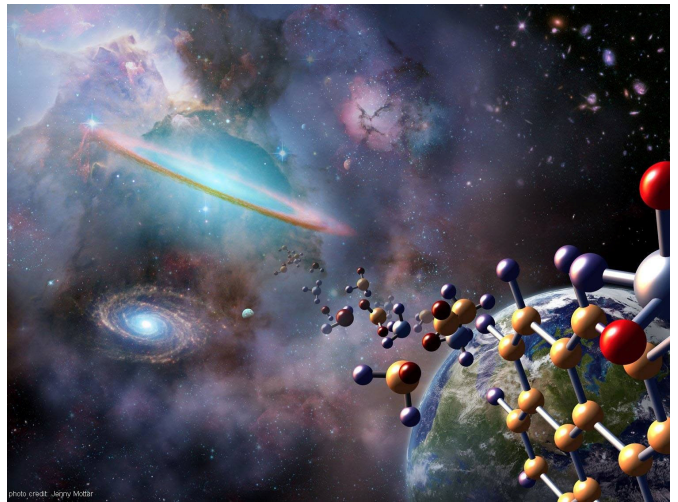
Next Meeting on May 18th

The Milwaukee Astronomical Society will hold its next **General Meeting on Friday, May 18th, at 8 PM** at the Observatory. First we will have the annual Business Meeting to elect new Board members.

Afterwards, **Angela Van Sistine** from the UWM Center for Gravitation, Cosmology, and Astrophysics will return this month with special guest and biochemist **Amber Bakkum** from the Medical College of Wisconsin for a multi-discipline presentation

entitled; **Astrobiology: Life Beyond Earth**. Astronomers are discovering increasing numbers of exoplanets and beginning to understand what types of environments these other worlds may have. At the same time, biologists are digging deeper into how life arises, what it requires to persist, and how it evolves. Astrobiology is the exciting intersection of astronomy and biology that seeks to answer the fundamental question: Does life exist beyond Earth?

The meeting will be preceded by a Board Meeting from 7 PM that is open for everybody who interested in organizational and Observatory related issues.



Inside this

May Meeting	1
Election	1
Public Nights	1
Meeting Minutes	2
Membership	2
Treasurer Report	2
Observatory Director's Report	2
Observatory news	3
Science Fair	4
Maintenance	5
In the news	6
Adopt a Scope	7
Officers/Staff	7
Keyholders	7

MAS Election

At the beginning of the Membership Meeting we will elect new Board Members and Officers. The second term of one Board member, and the first term of two other ones will be expired. At least two Board positions will be open.

If you are interested in serving a three year term on the Board or a year as an Officer and would like to receive more information about those position please contact any Board Member or Officer.

Public Nights 2018

This year's Public Night season will start on **Friday, May 11th, 7:00-10:00 PM**

If you are willing to participate with manning a telescope, giving a tour of the observatory, or helping in the parking lot, please join us. Thank you for your kind contribution that would help to make the nights successful.

To prepare the Observatory we will have a Spring Cleanup work party on Saturday, May 5th from 9 AM. Lunch and beverages will be served.

Observatory Report

Work has begun a couple of weeks ago on the long over due project of remodeling the interior of the A-dome. The depth of work for the complete project are still being worked out by the Observatory Committee. The B-dome slit needed repair due to a sheared pin in the drive train that opens and closes the slit. Work has been completed and the B-Dome is operational.

Anne Dowling of Menomonee Falls donated two telescopes to the Society last month. One is a very nice 4 ¼ inch Astroscan complete with eyepieces and other accessories. Due to the great shape this telescope is in all it needed was a good cleaning and will now be kept at the Observatory to be used as a loaner scope. A checkout log is kept with the scope to track users. The other telescope is a Coulter Optical Odyssey 1, 13.1-inch Telescope on a Dobsonian mount. The mount and tube are very heavy and in only fair condition, so the scope was taken apart to salvage the useable components which will be sold. The mount and tube were removed from the Observatory and trashed.

An old Tele Vue Diagonal was sold for \$85 and an 8" F6 telescope mirror was sold for \$121 bringing a total of \$206.

Respectfully Submitted,
Paul Borchardt, Observatory Director

Treasurer's Report

\$6,416.50	Starting Balance as of 03/14/2018
	<u>Expenditures</u>
\$1.69	PayPal fees
\$100.00	Stipend
\$120.00	Annual expenses
\$806.81	Periodic expenses
\$248.64	Observatory expenses
\$94.83	WE Energies
\$36.00	Water/sewer
\$1,407.97	TOTAL Expenditures
	<u>Revenue</u>
\$690.00	Private donations
\$123.00	Membership dues
\$50.00	Key deposits
\$65.00	Public donations
\$928.00	TOTAL Revenue
\$5,936.53	Ending Balance as of 04/25/2018

Respectfully Submitted,
Sue Timlin, Treasurer

Meeting Minutes

The meeting was held on April 27th at the MAS Observatory, New Berlin and was called to order at 7:02PM by Tamas Kriska President.

Minutes, Treasurer's Report, Observatory Director's Report, and Membership

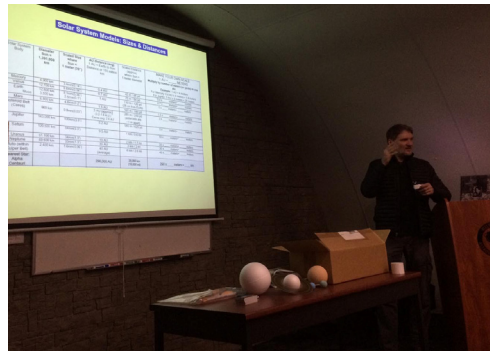
Committee Report was electronically submitted ahead of the meeting. Membership applications of Matthew Miranda, Alexandar Hyer, and Bonnie Weiland & Family were approved.

Old Business – Public Nights: A work party will be organized on May 5th to clean-up the observatories and the ground to be ready for the first Public Night on May 11th. **Motorized focuser:** The motor for the B-scope's new focuser has not arrived yet.

New Business – Camera bodies: A motion was made and carried to allocate \$600 to purchase a modified and a non-modified Canon T3i camera body to be permanently installed a narrow band filter in. The Club has a modified camera, and Paul Borchardt will donate a non-modified one.

Maintenance plan: A motion was made and carried to allocate \$4000 from the Endowment Fund to cover the annual maintenance plan that comprised of renovation of A-dome and building, coating the Quonset exterior, renovation of B-dome, and the roof repair of the Z2 observatory.

Long Range Planning: Scott Berg prepared a proposal as a basis for discussion.



Program – Tamas Kriska gave a presentation on the use of **Exploring the Solar System Tool Kit** provided by the Night Sky Network.

Respectfully Submitted
Agnes Keszler, Secretary

Membership Report


Since the last Report we received three applications and would like to welcome Matthew Miranda, Alexandar Hyer, and Bonnie Weiland.

We now have 155 active members.

Respectfully Submitted,
Jeff Kraehnke, Committee Chair

Observatory News

MAS Gets a Wikipedia Entry



WIKIPEDIA
The Free Encyclopedia

Main page
Contents
Featured content
Current events
Random article
Donate to Wikipedia
Wikipedia store

Interaction


Help
About Wikipedia
Community portal
Recent changes
Contact page


Tools

What links here
Related changes
Upload file
Special pages
Permanent link
Page information
Wikidata item
Cite this page

Print/export

Create a book
Download as PDF
Printable version

Languages 

 Add links

Article Talk

Read Edit View history

Not logged in Talk Contributions Create account Log in

Search Wikipedia

Milwaukee Astronomical Society

From Wikipedia, the free encyclopedia

The **Milwaukee Astronomical Society (MAS)** is a 501(c)(3) tax-exempt organization serving amateur astronomers in the greater Milwaukee area since 1932, making it one of the oldest continuously running astronomy clubs in the nation. The MAS operates an *observatory*, one of the largest amateur club observatories in the world. The current membership is 175.^[1]

Contents [hide]

- History
- Observatory
- Membership
- Meetings
- Events
- Publications
- Associated Organizations
- See also
- References
- External links

History [edit]

The MAS was formed in 1932 with an ad taken out in *The Milwaukee Journal* of September 18 announcing an organizational meeting the following Wednesday at the home of Luverne Armfield.^[2] As a result of that meeting, the Milwaukee Astronomical Society was formed with 18 charter members.^[3] The club had regular observing sessions in Armfield's backyard, where there was an emphasis on scientific observation programs, especially variable stars, meteors, and lunar occultations.^[4] Notable early members were Edward A. Halbach, Walter Scott Houston, and William Albrecht. Growth would continue month by month and by the end of 1933, there would be 130 members.^[5]

In January of 1934 a member, M.J.W. Phillips offered an acre of land for the establishment of an observatory outside Milwaukee in the Town of New Berlin. The land bordered a quiet road which would one day be named Observatory Road. The next month, the AAVSO offered the MAS a 13-inch plate glass mirror which they could use as long as the club pursued the study of variable stars. A telescope for that mirror was completed in October, 1934 and was installed in Armfield's backyard since the remote observatory was not yet established.^[6]

In 1935, Luverne Armfield along with J. Wesley Simpson, Director of the Missouri-Southern Illinois Observers (MSIO), formed a national organization, the American Amateur Astronomers Association (AAAA). It was a confederation of local societies modeled after the *British Astronomical Association* with its own publication, *Amateur Astronomy (AA)*. Initial members were the MAS, MSIO, and the Madison Astronomical Society. The individual clubs consolidated their own newsletters into AA and traded information on scientific observing programs and eventually observatories and telescope making. It grew to 15 societies from

Milwaukee Astronomical Society



Abbreviation	MAS
Formation	1932
Legal status	non-profit incorporated association
Location	Milwaukee, Wisconsin, USA
Coordinates	42°58′07.57″N 88°08′53.89″W﻿ / ﻿42.9684917°N 88.1483028°W﻿ / 42.9684917; -88.1483028
Membership	175
Publication	Focal Point
Website	www.milwaukeeastro.org

I have longed for our Club to have its own Wikipedia page, but this only happens deliberately and has to pass the scrutiny of the editors of Wikipedia, most of which are unpaid, but passionate about the goals of this public encyclopedia.

By their "rules" a Wikipedia entry:

- (1) Must be notable, which means does it belong in the encyclopedia. Is the MAS a notable topic? Right away, this could be an obstacle.
- (2) Must have at least three high-quality sources that have a substantial discussion of the subject. The big problem here is the best source of information comes from our own club website which is obviously not a non-biased source.
- (3) Conflict of interest by the author(s).

I have had the ability and desire to write this article for a long time, but I had a hard time getting around this problem. The proof for a long time was that no amateur astronomy clubs seemed to have entries. But recently I learned it wasn't necessarily impossible because there were now a handful of clubs.

So essentially I took a chance and did a lot of research to find sources other than our own website. Though it was stated that approval could take up to 8 weeks before the article could be published. It was approved in 8 hours!

Gene Hanson
Webmaster

Observatory News

The Moon as a Science Fair Project Topic

A new tradition is evolving in the MAS. This is already the second time when the Club's activity inspired a student to choose an astronomy related project for a school assignment. Last year an elementary school student's topic was the Solar System by using a model he had won in a Public Night raffle.

This year a new MAS member TJ Bingham-Tyson selected the Moon for his Science Technology Engineering Math program's Science Fair project.

TJ is a 6th grader student of the Longfellow Middle School in Wauwatosa, and always loved math and science, especially learning about space. He wants to be an astronomer

when he grows up. No wonder he has chosen the Moon as the topic of his presentation.

TJ visited the Observatory with his father, and was curious about everything: how to observe the Moon by looking through an eyepiece, and how to image it. He learned how to capture a video with a planetary camera or take still pictures with a DSLR camera, and how to process the raw files. TJ went home with a set of beautiful images, a centerpiece of his assignment. He can be very proud of himself since he earned an A grade for his Science Fair poster.

Great job TJ, we are also proud of you and hope to see you at the Observatory again.



TJ in front of his board at the Science Fair project presentation.

Observatory Maintenance

B-Dome Slit Motor repair

The B-dome slit needed repair due to a sheared pin coupling the motor with the drive train that opens and closes the slit. The work has been completed and the B-Dome is fully operational.



A-Dome Floor

After the Quonset and A-building entrance remodeling, we are advancing to the next phase, and giving a facelift to the A-dome. First step was replacing the rotten wood pieces of the hardwood floor to form a solid base for a new vinyl flooring.



In the Astronomical News

Most Distant Star Ever Seen Spotted by Hubble Telescope Nine Billion Light Years Away

Astronomers have identified a star 9 billion light years from Earth – the farthest individual star ever seen.

Usually it is impossible to make out stars at distances greater than around 100 million light years, even using the most powerful telescopes. This achievement was made possible due to a phenomenon known as gravitational lensing. Previously used to locate planets far outside the Milky Way, lensing involves galaxies within astronomers' line of sight bending rays of light and effectively magnifying objects in distant parts of the universe.

The team had been using the Hubble Space Telescope to monitor a supernova when they noticed a point of light, which they later realized was an individual star. In this case, the gravity of a massive galaxy cluster 5 billion light years away created the lensing effect, allowing astronomers to see the object – a blue supergiant they named

Icarus. "For the first time ever we're seeing an individual normal star – not a supernova, not a gamma ray burst, but a single stable star – at a distance of 9 billion light years," said Professor Alex Filippenko, an astronomer at the University of California, Berkeley, and a co-author of the paper documenting this discovery. "These lenses are amazing cosmic telescopes."

While it is possible to view galaxies very far away – as they glow with the light of billions of stars – and supernovas due to their incredible brightness, the discovery of an isolated star at this distance is unique.

"You can see individual galaxies out there, but this star is at least 100 times farther away than

the next individual star we can study," said Dr Patrick Kelly, an astronomer at the University of Minnesota who led the study. These findings were published in the journal *Nature Astronomy*.

Generally, lensing can only magnify distant objects by around 50 times, but the researchers found Icarus was magnified to a far greater degree.

The reason for this discrepancy is that on top of the initial magnification by the galaxy cluster, this star was further magnified when another individual star within that cluster happened to

precisely align in front of Icarus.

This foreground star added to the overall magnification effect, boosting its brightness more than 2,000 times.

Dr Kelly and the team predict that in the coming decades Icarus will be magnified many more times, potentially as much as 10,000 times its actual brightness.

They said by using gravitational

lensing it could be possible to view many more distant objects, and in doing so learn about stars in galaxies formed during the first days of the universe.

"There are alignments like this all over the place as background stars or stars in lensing galaxies move around, offering the possibility of studying very distant stars dating from the early universe, just as we have been using gravitational lensing to study distant galaxies," said Professor Filippenko.

"For this type of research, nature has provided us with a larger telescope than we can possibly build."

by Josh Gabbatiss

Science Correspondent, independent.co.uk



A rare gravitational lensing event has allowed astronomers to image the most distant single star ever observed.

Credit: NASA, ESA, and P. Kelly, University of Minnesota/PA.

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	18" F/4.5 Obsession	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	Herman Restrepo/Matt Mattioli	8" F/11 Celestron EdgeHD	Ray Zit Observatory
8	Tamas Kriska	14" F/1.9 F-scope	Jim Toeller Observatory
9	Paul Borchardt	Solar scope	SkyShed POD



MAS Observatory

18850 Observatory Rd
New Berlin, WI 53146

www.milwaukeeastro.org

At Your Service

Officers / Staff

President	Tamas Kriska	414-581-3623
Vice President	Sue Timlin	414-460-4886
Treasurer	Sue Timlin	414-460-4886
Secretary	Agnes Keszler	414-581-7031
Observatory Director	Paul Borchardt	262-781-0169
Asst. Observatory Director	Jeff Kraehnke	414-333-4656
Newsletter Editor	Tamas Kriska	414-581-3623
Webmaster	Gene Hanson	262-269-9576

Board of Directors

Scott Berg	262-893-7268
Russ Blankenburg	262-938-0752
Clark Brizendine	414-305-2605
Robert Burgess	920-559-7472
Jason Doyle	414-678-9110
John Hammetter	414-519-1958
Lee Keith	414-425-2331
Frank Kenney	414-510-3507
Jeff Kraehnke	414-333-4656
Sue Timlin	414-460-4886
Steve Volp	414-751-8334

May Keyholders

05/05 Steve Volp	414-751-8334
05/12 Gene Hanson	262-263-9576
05/19 Lee Keith	414-425-2331
05/26 Jeff Kraehnke	414-333-4656