



**April, 2025**

**Website:** [www.midhudsonastro.org](http://www.midhudsonastro.org)

**President :** Jack Chastain  
**Secretary:** Jim Rockrohr  
**Newsletter Editor:** Rick Versace  
**Publicity:** Tim Denman  
**Speakers:** Bart Henin

**Directors:** Alex Passas, Karl Loatman, Steve Dittmar, and Willie Yee

**groups.io Group:** mhaa.groups.io

**Vice President:** Dave Sherman  
**Treasurer:** Eric Myers  
**Membership Coordinator:** TBD  
**Webmaster:** Steve Dittmar  
**Outreach:** Michael Goldstein  
**College Liaison:** Dr. Amy Bartholomew

**The next meeting is April 15<sup>th</sup>, 2025, on Zoom and in person. Check MeetUp for details and link. Zoom link will be sent to all those that RSVP.**

**April Speaker**

**Co Evolution of Star Formation & Black Hole Accretion in Galaxies Across Time**

Dr. Alyssa Sokol

Dr. Alyssa Sokol from Vassar College will present a talk to Mid-Hudson Astronomical Association members and the public about her recent thesis. She will discuss the fascinating co-evolution of stars and black holes in galaxies across cosmic time

Online link to the MHA A monthly Business Meeting Agenda:

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"Astronomy at Lake Taghkanic State Park"

<http://spy-hill.net/myers/astro/ltsp/>

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**Minutes of the monthly meeting of the Mid Hudson Astronomical Association,  
March 18, 2025**

The meeting was called to order at 7:30 PM by President Jack Chastain in the Coykendall Auditorium at SUNY New Paltz, NY, and on the online application Zoom.

The minutes of the February meeting as published in the newsletter were passed unanimously.

**Officer's Reports:**

**President:** Jack Chastain was present.

- Jack and Steve Dittmar were at the Lagrange Library to help a new member.
- Talked to the library about a lending scope. They showed some interest.
- Slack is requiring a paid subscription to hold data more than 90 days.
  - o Jack and others exploring Discord (free).

**Vice President:** Dave Sherman was present.

- Nothing to report.

**Recording Secretary:** Jim Rockrohr was present.

- Nothing to report.

**Publicity:** Tim Denman was present.

- Thanks to Steve for web updates.

**Newsletter:** Rick Versace was not present.

- (No report).

**Treasurer:** Eric Myers was present.

- See newsletter for year end numbers.
- Working to file annual "Tax" forms to maintain our non-profit status.

**Outreach:** Mike Goldstein was present.

- **John Burroughs's Woodchuck Lodge** group wants to do a star party.
  - o They have a good dark site.
  - o Dates, etc., TBD.
- **Olana** would like to schedule more star parties, especially one that would appeal to kids.
  - o Mike will be at a planning meeting with them on 3/28.

**Speakers:** Bart Henin was present.

- April: Prof. Elizabeth Sokol (Vassar).
- Others booked through May. Working on June and July.

**Membership:** Eric Myers (acting) was present

- Lots of renewals; see newsletter for details.
- 3 new members.
- Needs someone to take over this job since the web application is up and running.

**Solar System Ambassador:** Willie Yee was present.

- NEAF coming up.

**Webmaster:** Steve Dittmar was present

- Calendar still needs work (see the January Newsletter).

**Old Business:**

- **Last club star party** – cancelled due to clouds and wind.

**New Business:**

- **Next Club Star Party:** Friday, 4/25. Be sure to RSVP.
- **Walkway at Night** events.
  - We are invited to all night time events – See Eric for dates.
  - They are starting a new program before dark. Maybe we can have a presence even on cloudy nights. See Eric if interested.

**Events:**

- **Saugerties High School star party** – 3/28, see Jack.
- **NEAF** – 4/5-6 Rockland Community College
- **Dutchess County Science Fair** on 4/6. Need judges. See Eric.
- **Mohonk event** – 9-10-ish, 4/18 (19 rain date)
- **Lagrange Library Science Fair** – 4/26
- **Queer Outdoor Adventures** – 4/26 (“rain or shine”), Lake Taghkanic. See Eric.
- **Lagrange Library** – wants “Astronomy 101” for adults during the summer. Details TBD.

**Reminders:**

- Paid members get access to club equipment (telescopes, imagers, trackers) and club DVD/VHS video library.
  1. See the website or Jack for a list of available items.
- Paid members can also get access to the club Slack channels. Contact Jack or Eric for access.

**Observing Reports:**

- Lunar Eclipse. Good pictures by some members.

The business meeting was adjourned at 8:00 PM. There were 9 Zoom windows open at the end of the business meeting and approximately 9 people were in the auditorium. **The next meeting is April 15<sup>th</sup>, 2025, on Zoom and in person. Check MeetUp for details and link. Zoom link will be sent to all those that RSVP.**

The presentation that followed was by Richard Wolff-Jacobson: “Building the Pi Finder: How it Works and How to Build Your Own.”

Submitted by James Rockrohr, April 13, 2025.

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**MHAA Treasurer’s Report for April 2025**

As of 13 April 2025 we have \$6,057.68 in our bank account and \$3,081.58 in our PayPal account, with the Treasurer holding \$50.00 in petty cash. Our monthly payment for Google gSuite on the first of the month was \$31.14, and we will pay \$15.99 on the 15th for Zoom Pro for one month.

This month we took in \_\_\_\_\_ in dues for 7 renewing members and \$24.60 for one new member. We spent \$25.00 for one award for the Dutchess County Regional Science Fair.

This month I filed IRS form 990N for 2024 to maintain our Federal tax-exempt status. I have also filled out the state form CHAR500 for 2024 online, and the required signatures from the President and Treasurer should be completed by the time of our meeting on Tuesday.

Respectfully Submitted,

Eric Myers  
Treasurer

## MHAA Membership Report for April 2025

As of 13 April 2025 the club has 104 members in good standing, of which 3 are students and 2 are honorary members from SUNY New Paltz. Since the last report there have been 7 membership renewals, and 1 new member has joined us.

Respectfully Submitted,  
Eric Myers  
Acting Membership Coordinator

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## Adirondack Astronomy Retreat

Forwarded by Willie.

**This MAY be the last Adirondack Astronomy Retreat.**

Hi Everyone!

**The registration for the David. H. Levy Adirondack Astronomy Retreat -2025 is now open!** It's the same AAR you know and love in the 2025 edition.

David and Wendee Levy Started the AAR back in 2004, and it continues on to this day.

**David Levy , the famous comet hunter who co-discovered Shoemaker- Levy 9 will be there for BOTH SESSIONS ( all week).** It's a great chance to meet him, and he will gladly autograph anything you bring for him to sign. David is celebrating the 31st anniversary of the SL-9 impacts on Jupiter... There is a chance that this could be the LAST AAR, as SUNY Plattsburg will be selling the campsite at the end of the summer. If you have been contemplating going, now is the time! From **Sunday July 20 - to Sunday July 27 2025**. As usual, you can book either or both of the sessions and the interim day as you desire. Meals included except for interim day. We also expect to have the president of NJAG there on the second half with his **30" Obsession** for folks to view through. What an opportunity to see through a BIG scope at a really dark sky site!

AAR is in a Bortle 2/3 sky ( comparable to cherry springs) but with the bonus of a main house, catered food, daytime presentations and LOG cabin accommodations!

**You can register using this link:** <https://fs30.formsite.com/CASplattsburgh/AAR2025/index>

( Remember to add a ZERO to any selection you DO NOT want while registering. )

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**This article is distributed by NASA's Night Sky Network (NSN).**

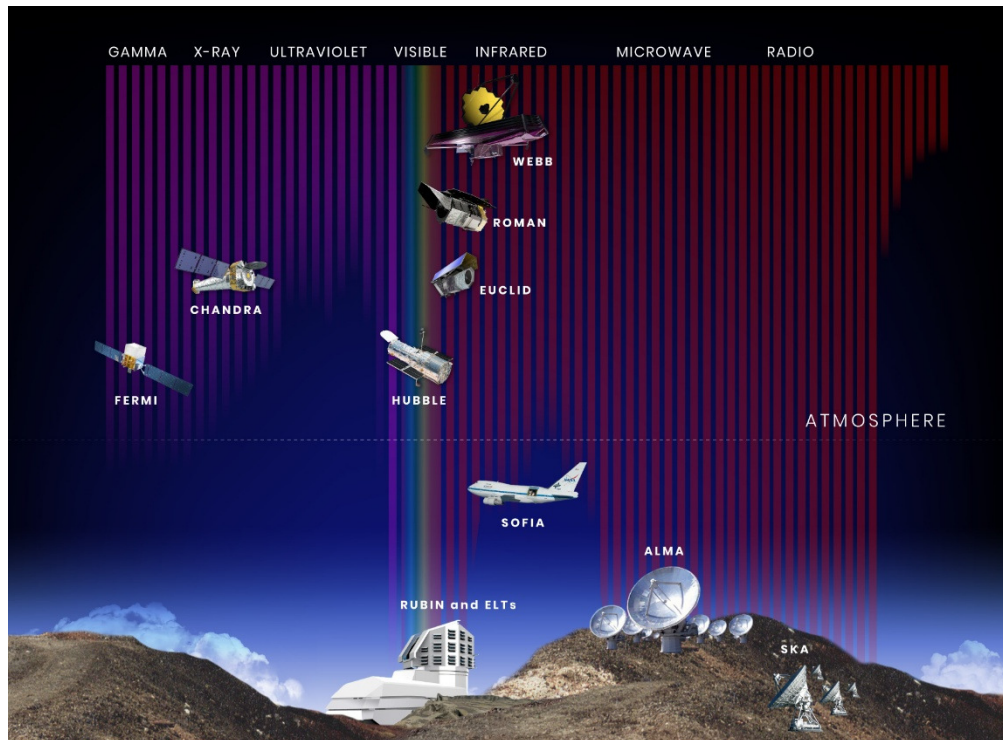
The NSN program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit [nightsky.jpl.nasa.gov](https://nightsky.jpl.nasa.gov) to find local clubs, events, and more!

## April's Night Sky Notes: Catch the Waves!

By Kat Troche

## The Electromagnetic Spectrum

If you've ever heard the term "radio waves," used a microwave or a television remote, or had an X-ray, you have experienced a broad range of the electromagnetic spectrum! But what is the [electromagnetic spectrum](#)? According to Merriam-Webster, this spectrum is "the entire range of wavelengths or frequencies of electromagnetic radiation extending from gamma rays to the longest radio waves and including visible light." But what does **that** mean? Scientists think of the entire electromagnetic spectrum as many types of light, only some that we can see with our eyes. We can detect others with our bodies, like infrared light, which we feel as heat, and ultraviolet light, which can give us sunburns. Astronomers have created [many detectors](#) that can "see" in the full spectrum of wavelengths.



This illustration shows the wavelength sensitivity of a number of current and future space- and ground-based observatories, along with their position relative to the ground and to Earth's atmosphere. The wavelength bands are arranged from shortest (gamma rays) to longest (radio waves). The vertical color bars show the relative penetration of each band of light through Earth's atmosphere. Credit: NASA, STScI

## Telescope Types

While multiple types of telescopes operate across the electromagnetic spectrum, here are some of the largest, based on the wavelength they primarily work in:

- **Radio:** probably the most famous radio telescope observatory would be the Very Large Array (VLA) in Socorro County, New Mexico. This set of 25-meter radio telescopes was featured in the 1997 movie Contact. Astronomers use these telescopes to observe protoplanetary disks and black holes. Another famous set of radio telescopes would be the Atacama Large Millimeter Array (ALMA) located in the Atacama Desert in Chile. ALMA was one of eight radio observatories that helped produce the first image of supermassive black holes at the center of M87 and Sagittarius A\* at the center of our galaxy. Radio telescopes have also been used to study the microwave portion of the electromagnetic spectrum.
- **Infrared:** The James Webb Space Telescope (JWST) operates in the infrared, allowing astronomers to see some of the earliest galaxies formed nearly 300 million years after the Big Bang. Infrared light allows astronomers to study galaxies and nebulae, which dense dust clouds would otherwise obscure. An excellent example is the [Pillars of Creation](#) located in the [Eagle Nebula](#). With the side-by-side image comparison below, you can see the differences between what JWST and the Hubble Space Telescope (HST) were able to capture with their respective instruments.



NASA's Hubble Telescope captured the Pillars of Creation in 1995 and revisited them in 2014 with a sharper view. Webb's infrared image reveals more stars by penetrating dust. Hubble highlights thick dust layers, while Webb shows hydrogen atoms and emerging stars. You can find this and other parts of the Eagle Nebula in the Serpens constellation. Credit: NASA, ESA, CSA, STScI, Hubble Heritage Project (STScI, AURA)

- **Visible:** While it does have some near-infrared and ultraviolet capabilities, the Hubble Space Telescope (HST) has primarily operated in the visible light spectrum for the last 35 years. With over 1.6 million observations made, HST has played an integral role in how we view the universe. [Review Hubble's Highlights here.](#)



The Crab Nebula, located in the Taurus constellation, is the result of a bright supernova explosion in the year 1054, 6,500 light-years from Earth. Credit: X-ray: NASA/CXC/SAO; Optical: NASA/STScI; Infrared: NASA/JPL/Caltech; Radio: NSF/NRAO/VLA; Ultraviolet: ESA/XMM-Newton

- **X-ray:** Chandra X-ray Observatory was designed to detect emissions from the hottest parts of our universe, like exploding stars. X-rays help us better understand the composition of deep space objects, highlighting areas unseen by visible light and infrared telescopes. This image of the [Crab Nebula](#) combines data from five different telescopes: The VLA (radio) in red; Spitzer Space Telescope (infrared) in yellow; Hubble Space Telescope (visible) in green; XMM-Newton (ultraviolet) in blue; and Chandra X-ray Observatory (X-ray) in purple. You can view the breakdown of this multiwavelength image [here](#).

### Try This At Home

Even though we can't see these other wavelengths with our eyes, learn how to create multiwavelength images with the [Cosmic Coloring Compositor](#) activity and explore how astronomers use representational color to show light that our eyes cannot see with our [Clues to the Cosmos](#) activity.

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## Star Party Schedule

Date	Arrival Time	Civil Dusk
Mar 28 2025	7:00 PM	19:44 EDT
Apr 25 2025	7:30 PM	20:17 EDT
May 23 2025	8:00 PM	20:49 EDT
Jun 20 2025	8:30 PM	21:08 EDT
Jul 25 2025	8:30 PM	20:53 EDT
Aug 22 2025	7:30 PM	20:14 EDT
Sep 19 2025	7:00 PM	19:25 EDT
Oct 17 2025	6:00 PM	18:38 EDT
Nov 21 2025	4:30 PM	16:59 EST

### Directions To The Star Party Site

[Lake Taghkanic State Park](#) is in the town Ancram, NY. The park entrance is on the Taconic Parkway 10 minutes north of the exit used for Wilcox park.

Star Parties at Lake Taghkanic are held in the West Parking lot, next to the beach. The skies are darker than in Wilcox, with less stray light to deal with. The horizon is also much lower, especially to the south and east, making many more targets possible.

**IMPORTANT:** all events at Lake Taghkanic State Park require an **RSVP** which includes license plate number of the car you are bringing (please do so via [Meetup](#)). The park is patrolled by state police, and all non registered cars will be ticketed and risk our use of the park.

### General Information:

- ♦ Dates listed for star parties are the primary dates. The rain date is the following night unless otherwise noted. Only one session is held for a given weekend, usually on the primary date, Friday, unless postponed (usually due to inclement weather) to the backup date, Saturday. Exceptions to this are noted in the “Scheduled Events” section above.
- ♦ All outdoor events are FREE! All are welcome. If you bring small children, it is **your** responsibility to keep a close eye on them. Please do not bring white-light flashlights. Instead, bring a red astronomer’s flashlight or an ordinary flashlight covered with several layers of red cellophane. If in doubt about the weather, check the status of the event at [www.midhudsonastro.org](http://www.midhudsonastro.org).