MHAA

Mid-Hudson Astronomical Association

December, 2019

Website: www.midhudsonastro.org

groups.io Group: mhaa.groups.io

President : Jack Chastain
Secretary: Jim Rockrohr
Newsletter Editor: Rick Versace
Publicity: Tim Denman
Speakers: Paul Granich

Vice President: C. E. Raum
Treasurer: Eric Myers
Membership Coordinator: C. E. Raum
Webmaster: Paul Chauvet
Outreach: Joe Macagne
College Liaison: Dr. Amy Forestell

Directors: Joe Macagne, Steve Carey, Willie Yee, Karl Loatman

Minutes of the monthly meeting of the Mid Hudson Astronomical Association, November 19, 2019

The meeting was called to order at 7:30 PM by President Jack Chastain in the Science Hall auditorium at SUNY, New Paltz, NY.

The minutes of the October meeting as published in the latest Newsletter were approved.

Officer's Reports:

President: Working on getting Groups.io working to replace the Yahoo group.

- We currently have 242 people listed on MemberPlanet, 113 on the Yahoo MHAstro group, and 48 on Groups.io.
- All files have been recovered from Yahoo and will be moved to Groups.io.
- Recommend sending messages to both Yahoo and Groups.io for the time being until more people move to Groups.io.
- Email distribution on MemberPlanet costs about $600/month (!).

Jack suspended the normal agenda to speed up the meeting. No other officers had a report.

Old Business:

- **The October Star party** was cancelled due to weather.
- **Walkway Over the Hudson** had the Solar System Model but no telescopes due to clouds.
- **Two Girl Scout Events last month:**
    - 5-6 Brownies at Mahopac
    - Larger group at Camp Wendy in Wallkill.
- **Transit of Mercury:**
    - SUNY New Paltz and Walkway over the Hudson.
    - Cloudy for the first hour, but otherwise very good after that.

New Business:

- **Next Club Star Party**: November 29, 7:00 PM. Be sure to RSVP with license plate number, make and model of your car by the Thursday evening before the star party, even if there is only a remote chance that you will attend on Friday evening or Saturday, if postponed due to weather. It's better to have too many people on the list rather than someone who isn't registered.
- **Elections:**
    - **No nominating committee formed so the following slate was proposed by Jack:**
        - **President: Jack Chastain**
        - **Vice Presidnet: Tim Denman**
        - **Recording Secretary: Jim Rockrohr**
        - **Treasurer: Eric Myers**
        - **Publicity: (open)**
        - **Newsletter: Rick Versace**
        - **Board of Directors: Willie Yee, Karl Loatman, Joe Macagne, Steve Carey**
    - **Voting will take place at the December meeting.**
- **We need speakers for our meetings:** Please let C.E. Raum know if you have any leads or ideas.
- **Pictures by club members** are welcome. Send them to Jack. Greg Salyer has already contributed several.
- **Should we stay in the Science Hall Auditorium?**
    - We can park on campus after 6:30 PM except for the residence hall lots.
    - After discussion we decided to stay in the Science Hall by a show of hands.
- **West Hurley Library** wants help to set up a telescope loan program.
    - They are looking to buy a 4-1/2 inch telescope to loan.
    - Karl Loatman volunteered to assist them.
- **Report from our SSA:**
    - Willie looking for nominations of members who have done 6 or more outreach events in 2019 for awards.
    - He also has Solar System cards for gift giving.
    - He is doing a Science Café talk about black holes on Wednesday, November 20, at the Temple Hill Tavern in New Windsor.
- **Please consider paid membership**. All of our meetings and star parties are free and open to the public. Membership dues ($25/year cash or check, $27 if paid online) help with our expenses which include honorariums for our speakers, liability insurance for our events, club 'scope repairs, etc. Benefits of paid membership include access to our club scopes, videos, and other equipment.

Upcoming Events

- Monocerotid meteor shower on November 21 at about 2345 hours. Very strong peak lasting about 30 minutes.

Observing Reports:

- (None mentioned.)

Visitors/New Members:

There were about 37 people in attendance at the end of the business meeting.

The business meeting was adjourned at about 8:13 PM. **The next meeting is December 17th, 2019, in the Science Hall Auditorium, SH181, at SUNY, New Paltz.**

The presentation that followed was by Dr. Eric Myers from the SUNY New Paltz Astronomy Department titled “Multi-messenger Astronomy”.

Submitted by James Rockrohr, December 14th, 2019.

MHAA Treasurer’s Report for December 2019

As of 15 November 2019 we have $2891.63 in our bank account, with no outstanding checks.
Last month we we received a donation from the Harding Club, along with other smaller cash donations, for a total of $140.

Annual membership dues are now due for anyone who paid last year in December. If you pay in person by cash or check it’s $25. It’s now a year since we started using Member Planet to collect membership dues, so if you paid by Member Planet then you should get a reminder, or you might even find you are automatically charged, depending on how you configured your account. We will see how well this works out in the next month or two.

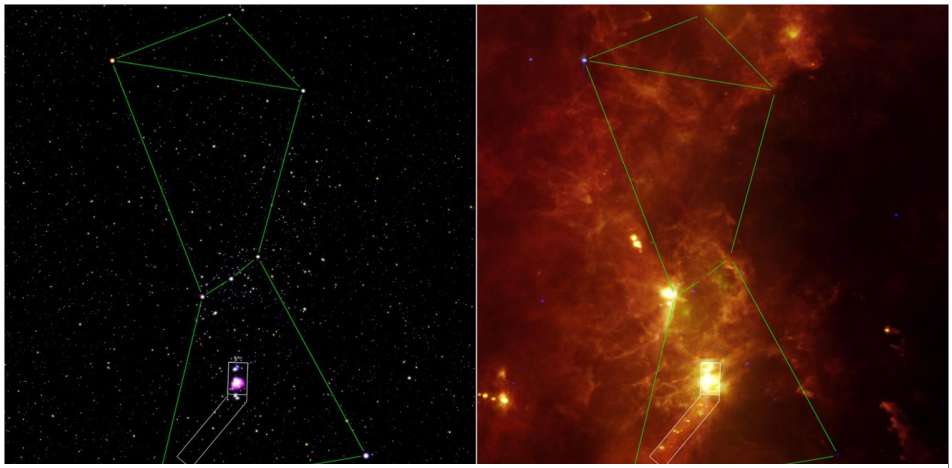
Respectfully Submitted,
Eric Myers
Treasurer

The Orion Nebula: Window Into a Stellar Nursery
David Prosper

Winter begins in December for observers in the Northern Hemisphere, bringing cold nights and the return of one of the most famous constellations to our early evening skies: Orion the Hunter!

Orion is a striking pattern of stars and is one of the few constellations whose pattern is repeated almost unchanged in the star stories of cultures around the world. Below the three bright stars of Orion’s Belt lies his sword, where you can find the famous Orion Nebula, also known as M42. The nebula is visible to our unaided eyes in even moderately light-polluted skies as a fuzzy “star” in the middle of Orion’s Sword. M42 is about 20 light years across, which helps with its visibility since it’s roughly 1,344 light years away! Baby stars, including the famous “Trapezium” cluster, are found inside the nebula’s whirling gas clouds. These gas clouds also hide “protostars” from view: objects in the process of becoming stars, but that have not yet achieved fusion at their core.

The Orion Nebula is a small window into a vastly larger area of star formation centered around the constellation of Orion itself. NASA’s Great Observatories, space telescopes like Hubble, Spitzer, Compton, and Chandra, studied this area in wavelengths we can’t see with



This image from NASA’s Spitzer missions shows Orion in a different light – quite literally! Note the small outline of the Orion Nebula region in the visible light image on the left, versus the massive amount of activity shown in the infrared image of the same region on the right. Image Credit: NASA/JPL-Caltech/IRAS /H. McCallon. From bit.ly/SpitzerOrion

our earthbound eyes, revealing the entire constellation alight with star birth, not just the comparatively tiny area of the nebula. Why then can we only see the nebula? M42 contains hot young stars whose stellar winds blew away their cocoons of gas after their "birth," the moment when they begin to fuse hydrogen into helium. Those gas clouds, which block visible light, were cleared away just enough to give us a peek inside at these young stars. The rest of the complex remains hidden to human eyes, but not to advanced space-based telescopes.
We put telescopes in orbit to get above the interference of our atmosphere, which absorbs many wavelengths of light. Infrared space telescopes, such as Spitzer and the upcoming James Webb Space Telescope, detect longer wavelengths of light that allow them to see through the dust clouds in Orion, revealing hidden stars and cloud structures. It's similar to the infrared goggles firefighters wear to see through smoke from burning buildings and wildfires.

Learn more about how astronomers combine observations made at different wavelengths with the Night Sky Network activity, 'The Universe in a Different Light," downloadable from bit.ly/different-light-nsn. You can find more stunning science and images from NASA's Great Observatories at nasa.gov.

2019 Star Party Schedule

January 11	7:00 PM
February 1	7:00 PM
March 8	7:00 PM
April 5	8:00 PM
May 3	8:00 PM
May 31	8:30 PM
July 5	8:30 PM
August 2	8:00 PM
August 30	8:00 PM
September 27	7:30 PM
October 25	7:00 PM
November 29	7:00 PM
December 27	7:00 PM

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 Taghanic 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.

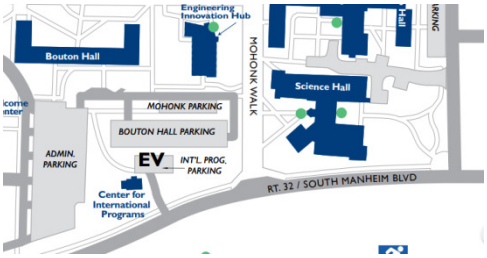
IMPORTANT: all events at Lake Taghkanic State Park require an **RSVP** which includes license plate number of the car you are bringing (please do so via Meetup). The park is patrolled by state police, and all non registered cars will be ticketted and risk our use of the park.

General Information:

- For the foreseeable future, all indoor meetings will be held on the 3rd Tuesday of each month in the Science Hall Bldg., SUNY New Paltz (directions below) at 7:30 PM. All indoor events are FREE! All are welcome. The presentations are generally geared towards teenagers and up.

- 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.



The Meeting will be in the Science Hall, SH181 (The square at the South entrance area in the image). The building is at the corner of Rt 32 and Plattekill Ave. Parking is available on the road or possibly in the large Admin parking lot. The Bouton Hall and Mohonk parking are not necessarily recommended, particularly when college is in session. Parking is available on the street as well, and there are a couple spaces on the North West parking on the road - MAKE SURE they are unmarked places though!