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[www.martzobservatory.org](http://www.martzobservatory.org)

## Auroras and Eclipses. What's the Big Deal?

Wednesday, August 21<sup>st</sup>, at 7:30 p.m. EDT



This year, we in Western New York were very fortunate to witness a couple of impressive natural events: a total solar eclipse in April and a spectacular auroral display in May. What do these events have in common and why should we care about them? This talk, by Dr. Jim Spann from NOAA, will explore the connection between these two phenomena, why we should understand and study them, and how they impact society.

**Dr. James F. (Jim) Spann, Jr.**, is the Senior Scientist for Space Weather at NOAA's NESDIS Office of Space Weather Observations (SWO). Prior to joining NOAA in 2023, he worked at NASA for 37 years, serving as the Space Weather Lead for the Heliophysics Division at NASA Headquarters. He developed and launched several auroral UV remote sensing instruments, managed the Marshall Space Flight Center's (MSFC) science research organization (encompassing Astrophysics, Planetary Science, Heliophysics, and Earth Science), and served as the MSFC Chief Scientist. A laboratory physicist by training, he earned his BS in mathematics and physics from Ouachita Baptist University (cum laude, 1979) and his PhD in physics from the University of Arkansas (1985).

**Dr. Spann** states: "My interest in the mysteries of space and how its dynamic nature affects society stems from my innate curiosity about how nature works. As a trained laboratory scientist, I have experience ranging from examining individual hair thickness-sized aerosols to building cameras that image the aurora from space. My interest in understanding the impacts of space weather on our planet couple's curiosity-driven observations with the desire to make this information useful to society."

This talk will be shown on our big screen at the Martz-Kohl Observatory and available online via Zoom. You are encouraged to come to the observatory to virtually meet **Dr. Jim Spann** and join in our always lively Q&A after his talk. Later, if the weather cooperates, we offer tours and viewing opportunities through the big telescopes.

## August - September 2024 Newsletter

### Membership Renewals

It's time to renew your membership for 2024-25. Membership year coincides with the fiscal year, October 1<sup>st</sup> through September 30<sup>th</sup>. You can either go online to renew your membership at <https://martzobservatory.org/about/membership-application-2022/> or you can choose to download a printable form and mail with a check, payable to **MMMAA**, 176 Robbin Hill Road, Frewsburg, NY 14738. On behalf of the **Marshal Martz Memorial Astronomical Association, Inc.**, we'd like to express our deepest gratitude for your continued support. Your membership is very important for the survival of our organization. If you have any questions regarding the renewal process, you can contact President Corey Swanson at [coreyswanson@gmail.com](mailto:coreyswanson@gmail.com)

### President's Update

It's hard to believe it's August already! Time moves pretty fast it seems sometimes, and it has brought some progress with it on our current projects. The outdoor observing pad project is well underway and should be completed very soon. There will be 2 triangular shaped observing pads and a pad for the SkyShed dome. The triangular shaped pads will be pointed north, with a line cut into it to help with polar alignment. If you look around, you can find most things have been "Brian-ized", and this is certainly one of those. All three of these observing pads will have electrical outlets available for those needing power. We have also purchased and installed a new Boltwood weather system due to a failure of the old one, which lasted 17 years. The Space STEM Camp was held the week of July 15<sup>th</sup> for students entering 7-9 grade in conjunction with Falconer Central Schools. The highlight of the week was a visit from **Dr. Alexandra Yep**. The presentation was attended by the campers and their families and the general public, packing Martz-Kohl Observatory almost to capacity! The Library Telescope Program continues this year thanks to grant funding from the **Chautauqua Region Community Foundation**, as well as members who have purchased the telescopes for donation to the libraries of their choosing. We are excited to get these telescopes to the Hazeltine Public Library in Busti, Sinclairville Free Library, Mary E. Seymour Memorial Free Library in Stockton, Cassadaga Branch Library, Anderson Lee Library in Silver Creek, Asheville Free Library, and Bemus Point Public Library! Thanks to a grant from the **Hultquist Foundation**, we will be upgrading the current security system with cameras to better protect the observatory facility. I would like to mention that we have changed our meeting schedule slightly. The Board of Directors will continue to meet the 4<sup>th</sup> Wednesday of every month, beginning at 7:00 p.m. General Membership meetings will be held quarterly beginning with the annual dinner and meeting on **September 25<sup>th</sup>, at 6:00**



**Dr. Alexandra Yep** doing a presentation at the Martz-Kohl Observatory in July.



**Mike Stafford** doing a presentation at the Martz-Kohl Observatory in May.

## August - September 2024 Newsletter

### Space STEM Camp

In Space STEM Camp this year, the students were extremely busy every day. Monday included welcoming activities and an introduction to the importance of patterns and the electromagnetic spectrum. Campers also prepped for Tuesday's visit to the Challenger Learning Center in Allegany, where they built a Mars Rover and completed a simulated Mars mission. Wednesday was the day to build their own Galileoscopes (telescopes using the techniques of Galileo), and to get a preview tour of the night sky in the planetarium. During the day Wednesday and Thursday, campers had the privilege to work side by side and listen to a presentation by Dr. Alexandra Yep, a poet turned astronomer and an Assistant Professor and Observatory Director at Agnes Scott College in Georgia. Dr. Yep's presentation focused on how scientists learn about stars. Her presentation is available on the MKO website. Thursday included building rockets, learning about Contamination, Microbiology, Nutrition and Physiology in space, along with a conversation with former Assistant Secretary of Defense for Space Policy, Dr. John Plumb, who spoke about the importance of international cooperation and consideration of national defense in developing policies around the use of space. At MKO, students experimented with lasers and mirrors, identified gasses by their spectrometry and programmed the MKO telescope to take photos of the dark sky object they had chosen to research. Friday is an exciting day outside, with a rocket launch (100% successful launch rate this year!) and experimentation with Dr. Nowling's "Whisper-ma-phone," which teaches students about the focus and directrix of a parabolic lens. Throughout the week, families also traveled to MKO for nighttime observations. MKO and Falconer Central Schools intend to continue this camp as long as possible, and doing so requires support from our community in sponsorship, donations and volunteer efforts. We are very grateful for the support we have received from the Shults Auto Group, and MKO members Mary Putnam and Alan Anderson.



## August - September 2024 Newsletter

### Astronomy Type Events in August & September & October

**August 12-13 Perseids Meteor Shower.** The Perseids is one of the best meteor showers to observe, producing up to 60 meteors per hour at its peak. The Moon will set shortly after midnight leaving dark skies for what could be an excellent early morning show. Best viewing will be from a dark location after midnight. Meteors will radiate from the constellation Perseus, but can appear anywhere in the sky.

**September 3 New Moon**

**September 8 Saturn at Opposition.** The ringed planet will be at its closest approach to Earth and its face will be fully illuminated by the Sun. It will be brighter than any other time of the year and will be visible all night long.

**September 18 Full Moon.** It's also known as the Harvest Moon. The Harvest Moon is the full moon that occurs closest to the September equinox each year. The Moon will be near its closest approach to Earth and will look slightly larger and brighter than usual.

**September 18 Partial Lunar Eclipse.** A partial lunar eclipse occurs when the Moon passes through the Earth's partial shadow, or penumbra, and only a portion of it passes through the darkest shadow, or umbra. During this type of eclipse, a part of the Moon will darken as it moves through the Earth's shadow.

**September 22 September Equinox.** The Sun will shine directly on the equator and there will be nearly equal amounts of day and night throughout the world. This is also the first day of fall (autumnal equinox) in the Northern Hemisphere.

### Calendar of Events

**August 21** Zoom webinar with **Dr. James Spann**, Senior Scientist for Space Weather for NOAA's NESDIS Office of Space Weather Observatories (SWO), "*Auroras and Eclipses. What is the Big Deal?*" at 7 p.m.

**September 14 International Observe the Moon Night.** It's a worldwide public event that encourages observation, appreciation and understanding of our Moon and its connection to science, exploration, and human culture.

**September 25** The annual dinner and meeting at **6:00 p.m.** at the **Martz-Kohl Observatory.**

**October 16** On-site presentation with **Dr. Darren Williams**, Physics Professor of Astronomy and Astrophysics, Penn State Behrend, at **7:30 p.m.** It will be available online via Zoom.



**Board Members:** Corey Swanson, **President**; Tom Traub, **Vice-President**; Walt Pickut, **Secretary**; John Anderson, **Treasurer**; Josh Campbell, **Assistant Treasurer**; Lawen Griffin, Jr.; Laurie Livingston; Gary Nelson; Bill Widell; Phil Stafford; Marcy Kupiec; Phil Evans; and Brian Ceci.