

# SANDRA F. PRITCHARD MATHER PLANETARIUM NEWS

## 2019-2020 Season

*The Mather Planetarium at West Chester University*



Greetings! It's been a wonderful summer for star gazing. The weather has cooperated more than usual, providing many clear nights and pleasant temperatures. We've had both Jupiter and Saturn prominent in our early evening skies. In July, we celebrated the 50<sup>th</sup> anniversary of the Apollo 11 moon landing... an accomplishment that's just as awe-inspiring today as it was in 1969. The Mather Planetarium will be open for business in just a few short weeks (tickets for the first live show go on sale this Friday, August 16!). As always, we look forward to seeing you under the dome!

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*"Astronomers, like burglars and jazz musicians, operate best at night."*

*- Miles Kington*

## Live Shows for the 2019-2020 Season

**September 6, 2019** – Jupiter: King of the Planets

**January 24, 2020** – Venus: The Evening Star

**October 4, 2019** – Ancient Astronomy

**February 21, 2020** – A Star is Born

**November 1, 2019** – Pluto Demoted

**March 20, 2020** – Our Amazing Sun

**December 6, 2019** – Other Earths

**April 17, 2020** – Exploring Asteroids

Movie shows are scheduled for most other Fridays - check our website for the full schedule.

# Apollo 50<sup>th</sup> Anniversary Celebration

On July 20, 1969, history was made when the first men walked on the Moon. While this was perhaps the highlight of the Apollo program, there were many amazing firsts before and after Apollo 11. To celebrate the entire program, the Mather Planetarium hosted a special event, open to the public, designed to educate and inspire guests of all ages.

The evening began with a presentation by NASA Solar System Ambassador John Conrad, a retired aerospace engineer, entitled “Lunar Reflections: Before, During, and After Apollo”. John’s talk was a informative and engaging look at the science leading up to Apollo that made the missions possible, as well as a peak at what the future might hold.



John Conrad, invited speaker

Following the lecture, visitors were invited to take part in a variety of activities. The Chester County Astronomical Society was on hand with telescopes for observing the Moon (of course!) as well as Jupiter and Saturn. The full-dome movie “Apollo 11: Man’s First Step onto the Moon” was shown in the Mather Planetarium. Hands-on activity stations let guests make space helmets, a solar system that fit in your pocket, paper rockets that were launched with 2-liter bottles, and more. Thank you to everyone who came out and made the event a huge success!



Stomp rockets with Dr. Marc Gagné



Exploring the lunar landscape with Sandy Maxwell



Checking out the Moon with Chester County Astronomical Society’s telescopes



The programs in the Mather Planetarium are made possible by generous donations from the community. To learn more about how you can support our educational and public activities please contact Dr. Karen Schwarz at (610) 436-2788, [kschwarz@wcupa.edu](mailto:kschwarz@wcupa.edu).



## Looking Up: Jupiter

Star light, star bright, first star I see tonight... probably isn't a star. The brightest object in our current night sky is actually the planet Jupiter. You'll see it, even before dark, in the southern sky as a bright, yellowish dot. Once it gets darker, you'll notice Saturn to the east of it and Antares - the brightest star in Scorpius - below and a little to the west.

Jupiter was one of the five planets the ancient astronomers identified long before telescopes were invented. While the Greeks didn't know what the planets or stars were, they did recognize that the two types of objects moved differently in the sky. The stars all moved together, keeping their positions relative to one another fixed from one night to the next. On the other hand, the planets *moved* relative to the stars; they wandered around. In fact, the word "planet" comes from the Greek word meaning "wanderer". We now know that planets and stars are vastly different objects and the wandering that planets do is because of their orbits around the Sun.

The name Jupiter comes from the Romans who named the planet after the king of the gods. It just

so happens that Jupiter is the largest planet in the solar system but there was no way for these ancient astronomers to know that. It's the second brightest planet, so that may have played a role, but Venus outshines Jupiter, sometimes by several orders of magnitude. Regardless of why they chose the name, it turned out to be very appropriate.

Jupiter is a gas planet, which means it's composed almost entirely out of hydrogen compounds. When viewed through a telescope, we see colored strips encircling the planet. These are bands of clouds with varying composition - ammonia, sulfur, water. Embedded in the bands are circles - the largest of which is given the very descriptive (if not very imaginative) name "The Great Red Spot". These spots are swirling storms within the atmosphere of Jupiter, similar to hurricanes or tornados seen here on Earth. However, these storms are much larger and last much longer than ours. The Great Red Spot is 2-3 times the size of our entire planet and has been going on for over 400 years! Makes one glad to be an Earthling rather than a Jovian.