

# MROI Monthly Inquirer

April 2020

Photo Credit Colleen Gino



# Letter from the Director

Dear Friends,

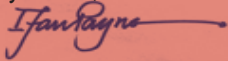
We live in difficult times and like all too many others, the restrictions that have been imposed in response of the COVID-19 pandemic have had a considerable effect on the project and on Magdalena Ridge Observatory. In our case, we have received a double whammy because we had also learned that the final Option of the incremental funding from AFRL for fiscal year 2020 was not funded. However, we do anticipate to be funded later this year contingent to the congressional budget and, in the meantime, New Mexico Tech will be requesting a no-cost extension.

The only fortunate outcome of the current situation is that the squeeze on our funding has coincided with a “work from home” instruction so that, of necessity, project activities at the Observatory have slowed to a trickle.

The unfortunate outcome of the current situation is that, because of the COVID-19 restrictions, we will not be able to welcome our friends to visit us and all tours have to be postponed until the “all clear” has been sounded after the pandemic has passed.

In the meantime, please download our new desktop wallpapers and, now that so many of us must stay at home and surf the video channels, I hope that you will take the time to enjoy our videos on YouTube.

Stay well,



The wallpapers are at  
<http://www.mro.nmt.edu/multimedia/wallpaper/>

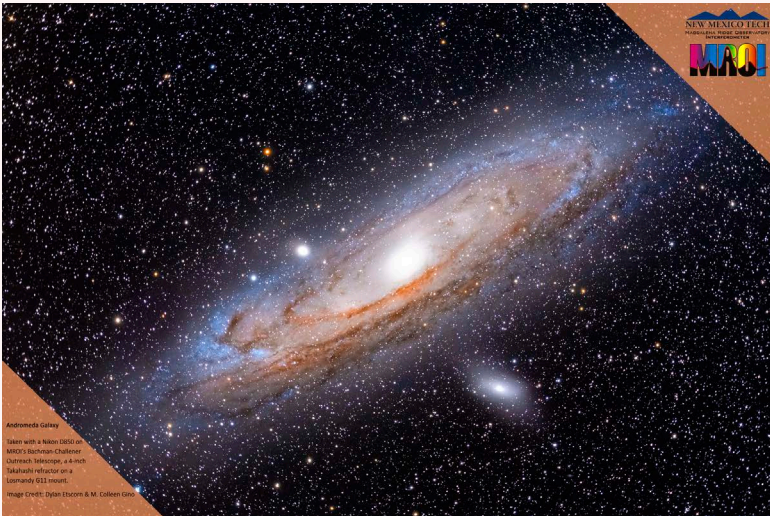
Our YouTube is at  
<https://www.youtube.com/channel/UC1Hu8GyaK3aBdq-jZvohOMw>

Want to be the first to know all the news and updates coming out of the MROI with early access to our monthly e-newsletter? Want our exclusive yearly newsletter mailed straight to your door? How about a private dinner and tour at the Observatory for you and seven of your friends? Or maybe you'd just like to support the advancement of science and astronomy in your community?

Do all of this and more by joining the Friends of the MRO. Go to our website to find out more:

<http://www.mro.nmt.edu/support-mro/>

Complete the printable coloring page at the end of this newsletter and send a picture to [setscorn@mro.nmt.edu](mailto:setscorn@mro.nmt.edu) to have your name and art in our next newsletter!



MRO wallpapers  
 are here!!  
 Download any of  
 these amazing  
 pictures and  
 more at

<http://www.mro.nmt.edu/multimedia/wallpaper/>



# Student Starlight

jeanette wolfram  
physics

Jeanette is a senior at New Mexico Tech majoring in Physics with a concentration in Astrophysics and a minor in Math. She's been employed at the MRO for a little over a year and assists the instrumentation scientist with optical analysis and beam combining implementation that will be used with starlight when applicable.



“MRO has benefited my career as an academic because it has allowed me to use my education and theory based knowledge to understand the inner workings of interferometry. This opportunity has also allowed me to build upon my undergraduate teachings and helped grow my interest in astronomy, astrophysics and science in general. The people I have met here are brilliant people who enjoy sharing their knowledge and helping each other grow as a community. I feel like I have gained many prosperous friendships and networking through this job. It has also given me ideas for future career choices while also giving me people to be inspired by.”



# Spargo's Sky Report

## April Skies

Spring has sprung and with it this year comes the prospect of an exciting celestial event. Comet C/2019 Y4, also known as Comet ATLAS, is approaching the inner solar system and is currently crossing the orbit of Mars on its way to its closest approach to the Sun in late May. The exciting part is that since its discovery on December 29, 2019, it has been brightening very quickly. Astronomers fear that if it brightens too rapidly, it may be torn apart by the Sun's solar wind. If that doesn't happen however, it could become bright enough to rival Venus and some say even visible during the day!

A word of caution! Comets have a long-standing history of not living up to expectations and I fear, this one may yet work out to be a dud. As it approaches, it can be found moving from the Big Dipper down toward the constellation Perseus. For an exact plot of its course, search online for "Comet Atlas" to see numerous pictures and charts. If it lives up to predictions here is an observing tip. Since it will be high in the northern sky, position yourself north of any bright lights. If you live in the south part of town, go north! Happy comet watching!

Brilliant Venus will continue to dominate the early evening sky and will actually brighten a bit over the course of the month from magnitude -4.5 to -4.7. Venus has slowly begun to move westward (toward the horizon). At the beginning of the month it will set 4 hours after the Sun. By month's end that interval will shrink to 3.5 hours after old Sol.

Most of the planetary action this month continues to be in the early morning hours involving Jupiter, Saturn and Mars. This trio will appear in the southeast about an hour before sunrise. On the 11th they will be pretty evenly spaced with Jupiter on the right (and brightest), Saturn in the middle and Mars on the left. At magnitudes -2.1, +0.7 and +0.8 all will brighten a bit as the month progresses. One fun thing to do is compare their colors either by naked eye or with a good pair of binoculars.

The Moon will be first quarter on the 1st, full on the 8th, last quarter on the 14th and new on the 23rd. Looking west on the 3rd, around 9 p.m., Venus will be barely  $\frac{1}{4}$  of a degree away from the 7 sisters, also known as the Pleiades. Looking southeast about an hour before sunrise, the waning last quarter Moon will be to the right of Jupiter on the 14th, just below Saturn on the 15th, and below and to the left of Mars on the 16th. Looking west on the evening of the 26th, about one hour after sunset, the crescent Moon can be found just to the left of brilliant Venus.

Due to the closure of New Mexico Tech because of COVID-19 virus concerns, there WILL NOT be a first Saturday of the month star party at the Etscorn Campus Observatory.

Stay safe and Clear Skies!

Jon Spargo  
New Mexico Tech Astronomy Club  
April 2020  
April Skies 2020.txt  
Displaying April Skies 2020.txt.





# MROI on the Road

Honolulu, Hawaii

AAS

By Shelbi Etscorn

he 235th meeting of the American Astronomical Society met January 4-8, 2020 in Honolulu, Hawaii, a destination and event MRO staff eagerly attended. The MROI team showed off their characteristic bright display in the exhibit hall as well as took part in the poster and oral presentations.

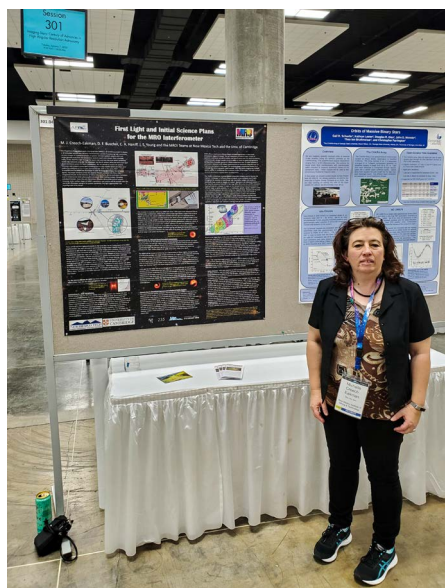


Colleen Gino and Shelbi Etscorn sitting at the MRO booth next to the AMOS and EIE booths.

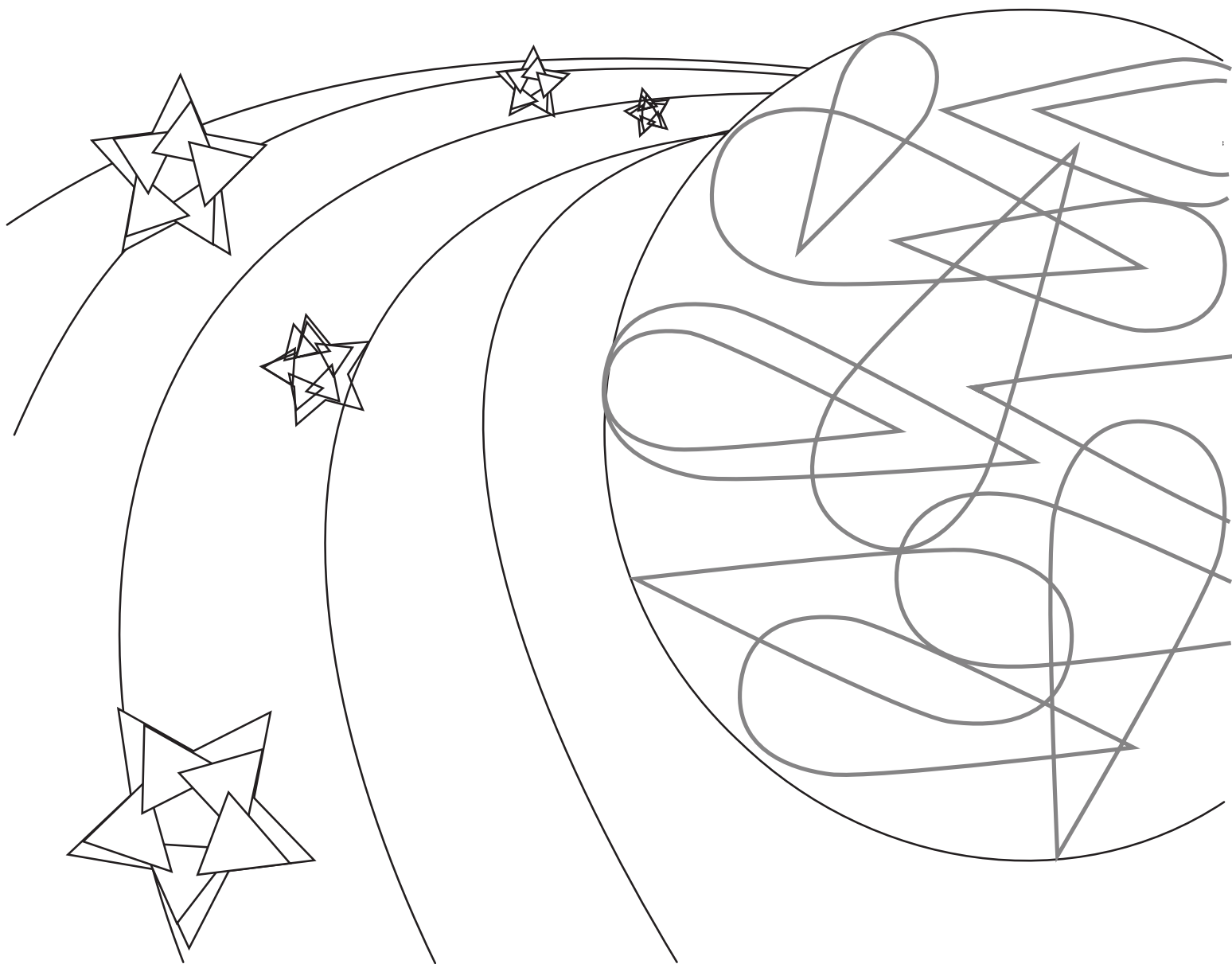
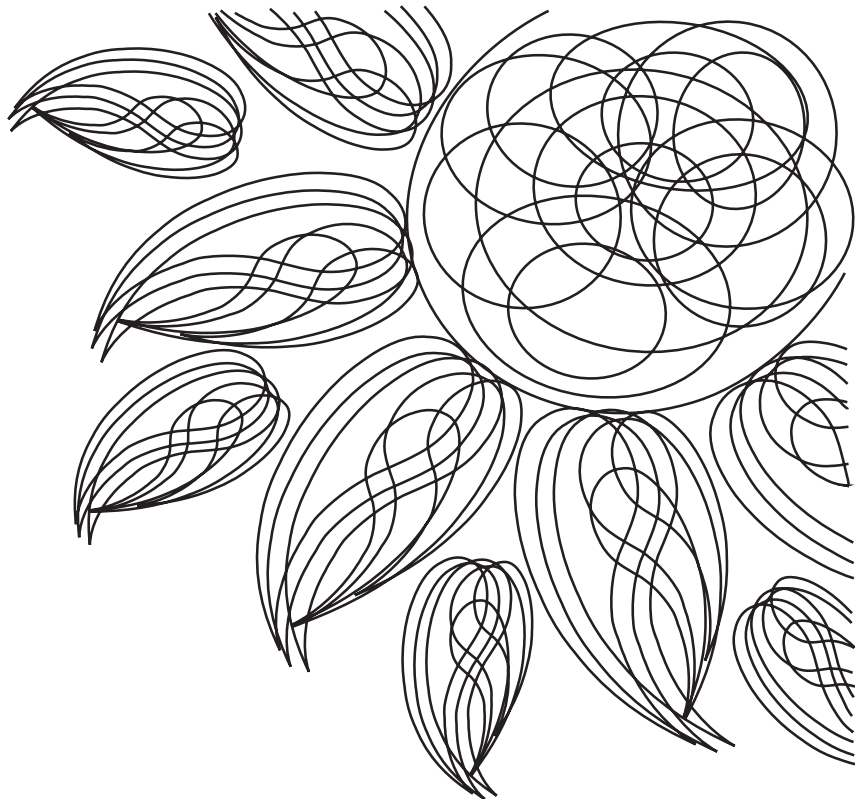
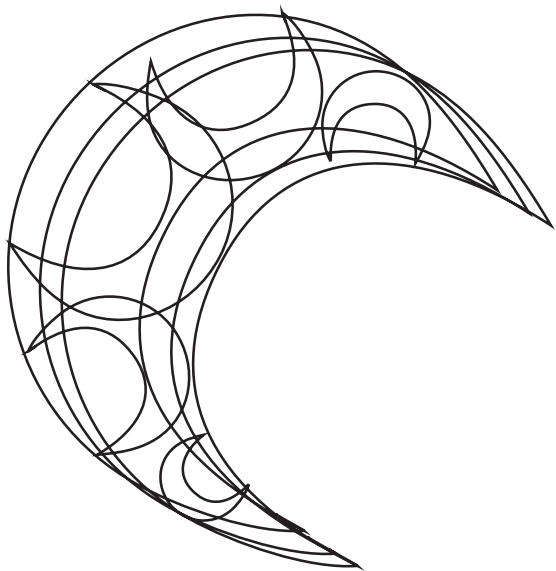
Michelle Creech-Eakman, the MROI's project scientist, presented her poster titled "First Light and Initial Science Plans for the MRO Interferometer" which discussed possible science ideas for the MROI's early-days science as the facility looks forward to getting its second and third telescope on site. It also provided a status update of the current facility.

Program director for the MROI, Ifan Payne, gave a talk titled "The History of Optical Interferometers: from the laboratory to the stars", in which he spoke of the development of optical interferometry for those without an optical science background. In his talk, he grouped interferometers into three distinct generations, with facilities like the MROI representing the third and newest generation.

Along with their respective presentations, both Michelle and Ifan helped Colleen Gino and Shelbi Etscorn of the outreach department at the MROI's booth in the Exhibit Hall. This year, the MROI was happy to have a table near AMOS and EIE, the brilliant teams behind our telescope mount and enclosure respectively.



Dr. Michelle Creech-Eakman and her poster she presented at the AAS meeting.





Van Romero, VP Research, Principal Investigator  
Ifan Payne, Program Director  
Michelle Creech-Eakman, Project Scientist

Colleen Gino, Assistant Director of Outreach and Communications  
Shelbi Etscorn, Outreach Assistant

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