Upcoming Events

September Calendar

Astronomy Friday Sep 1 8:00p
Intro to Astronomy Sep 6, 13, 20
Astronomy Thursday Sep 7 8p
Alan Stern @ UC Sep 8 3p
History of the Observatory Sep 10 1p
FOTO Member Meet Sep 11 7:30p
Topics with Dean Regas Sep 12 8p
Astronomy Thursday Sep 14 8p
Astronomy Friday Sep 15 8p
**CosmicKids Sold Out
Stonelick Stargazing Sep 16 dusk
A2Z+ Astronomy Sep 17 7p
FOTO Planning Meeting Sep 20 7p
Mitchel Society Thank You Sep 21 6-8p
Astronomy Thursday Sep 21 8p
Astronomy Friday Sep 22 8p
Great Outdoor Weekend Sat 23 & Sun 24
www.greatoutdoorweekend.org
ScopeOut STEM Fair Sep 23 all day
Stonelick Stargazing Sep 23 dusk
History of the Observatory Sep 24 1p
*Behind the Scenes Sep 26 7p
Astronomy Thursday Sep 28 8p
Astronomy Friday Sep 29 8p
Astronomy @ the Banks Sep 30 1-4p
Observe the Moon Night Oct 28
* UC Communiversity
**See the Cosmic Kids article for details

Membership News

by Valerie Niemi
FOTO Chair

Hello Fellow Sun-Gazers,

I’m writing this article early as Craig and I will soon be heading out to Glendo, Wyoming to watch the Great American Eclipse.

By the time you read this, we will all know how many of us had beautiful sunny skies on the 21st and how many of us were crying in our soup. Remember, there’s always 2024! The excitement and interest here in Cincinnati has been phenomenal. The Observatory distributed over 12,000 pairs of eclipse glasses in the past two weeks alone.

Don’t forget there’s life after the eclipse too. Upcoming events include Alan Stern, principal investigator of the New Horizons Pluto mission speaking at the University of Cincinnati on Friday Sept. 8 at 3pm and our own ScopeOut event will be part of the city’s Great Outdoor Weekend on Saturday, Sept. 23.

Here’s hoping you have had a just plain great time observing the eclipse and thanks again for all you do for the Cincinnati Observatory.

Topics With Dean Regas

The Fall Sky
Tuesday Sept. 12th 8pm

Meteors & Meteorites
Tuesday Oct. 17th 7pm

These fun and laid-back single topic classes for beginners focus on a variety of topics and will surely keep you looking up! $15 per person $12 for members.
Sign Up Online or call 513-321-5186.
Dean Regas Seeing Totality in Franklin, Kentucky

Speechless. We gathered in a field behind the Quality Inn — about 50 of us, most of us had never met before. I called out first contact when the moon made its presence known in front of the Sun. The crowd cheered! Then came the agonizing 90 minute wait for totality. Would those clouds on the horizon ruin the whole thing? I never relaxed until about five minutes before totality when I finally accepted we would all see it. The crowd asked that I tell them when totality began, so I rehearsed what I would say to signal this heavenly sight. But at the appearance of the diamond ring, I simply yelled, "It's started! Look at it!" And those were the last words I could coherently utter for the next 2 minutes and 30 seconds. I managed to take three pictures during totality but then it was over. Too soon. Too soon...

By Michelle Gainey

Thanks to Observatory member Tom East for all his great work organizing the Dawson Springs Eclipse Expedition!

Several FOTO members and other friends from Cincinnati experienced the total solar eclipse in the small town of Dawson Springs, Kentucky.

Thanks to the efforts of Tom East and Craig Niemi, we were able to sign up for camping spots. Everyone had a great time visiting with each other and seeing the awesome spectacle of the solar eclipse.
Leaf shadow crescents

“A Motley Crew”

Valerie getting ready

Niemi Totality Horizon

The Eclipse!

Niemi Totality

Photos by Dr. Flick

Other Member’s Photos
ScopeOut 2017
Sat., Sept 23rd

By Dale Zoller

ScopeOut 2017 will be held on Saturday, September 23, 2017 and will be part of the annual “Great Outdoor Weekend” events. All other aspects of ScopeOut will remain the same as the past several years with an emphasis on STEM-related activities.

2016 - There were many educational hands-on activities for children

This year’s keynote speaker will be Dr. Colin Bischoff. Dr. Bischoff is an Assistant Professor in the University of Cincinnati Physics Department. Since 2008 Dr. Bischoff has participated in Cosmic Microwave Background polarization experiments from sites in the Atacama Desert in northern Chile and the Amundsen-Scott South Pole Station.

In his talk titled “Observing the Origin of the Universe from Antarctica,” Dr. Bischoff will discuss current CMB research with the Keck Array and BICEP3 telescopes located at the South Pole. These telescopes detect faint impressions on the CMB from gravitational waves generated during the Big Bang. He will also discuss the unique benefits and challenges of conducting astrophysical research in Antarctica. Be sure to reserve your dinner/speaker tickets by contacting Craig Niemi at the Observatory office.

2016 - Dave Bosse at the swap table

I am pleased to announce that Tesla Motors of Cincinnati will return to ScopeOut this year, displaying several of their high-tech, environmentally friendly cars. We will also have the QUARK model rocket club back again this year. In addition, crowd favorite Stratus Helicopters will be back again this year! To top it off, Venice on Vine returns as the caterer for the dinner before our keynote speaker.

2016 - Scott Gainey helping at Al Mitterling’s meteorite table

As always, ScopeOut requires a large number of dedicated volunteers to make it run smoothly. At this time we are looking for people to assist with early morning set up, FOTO/COC table, Science Tent, Sundial, raffle table, dinner set up, tear down/clean up, etc.

You do not have to be an astronomer to assist with ScopeOut – just a couple hours and the desire to help make our STEM event a success. If you would like to volunteer, email me at dale.zoller@fuse.net.

Did You Know....

There are some one trillion galaxies in the known universe and some 50 billion planets estimated to exist in the Milky Way alone and some 500,000,000 predicted to exist in a habitable zone.
Donations and Consignment Sales Wanted for ScopeOut

By Dave Bosse

Now that the Eclipse is in our rear-view mirror, looking forward points us towards ScopeOut 2017. I’ll bug everyone one more time about donations, sales and re-sales of Astronomical gadgetry. We are still looking for donated astronomical gadgetry for sale at ScopeOut right up to the day of the event, September 23rd. Consignment sales will be handled as well. Just bring your items to the Observatory on the day of ScopeOut, the earlier the better. Even sooner than day-of-works too.

If you are interested in taking advantage of this opportunity or have any questions, drop an e-mail to Dave Bosse at dave.bosse@uc.edu or contact Dave at any of the FOTO meetings.

2018 Calendar Photo Contest

The Cincinnati Observatory invites all amateur and professional photographers to enter. Winning photos will be featured in our 2018 Cincinnati Observatory Calendar.

Submit your photos of the moon, planets, galaxies—anything celestial, whether taken in Cincinnati or anywhere else. Visit the Observatory and capture our incredible architecture, park-like green space and historic telescopes.

The “Best of Show” winner will have the honor of gracing the cover of our annual publication and will be treated to a private reception at the Observatory for up to 20 guests (date subject to availability).

Deadline is September 20th and winners will be announced October 2nd.

For more info go to the Website.

Observatory Historical Notes

By John Ventre, COC Historian

CAS Constitution II

This article is the third in a series that records the articles of the Cincinnati Astronomical Society’s Constitution. The Constitution was approved by the Society’s Board of Control on March 20, 1844.

Article 4. The President shall preside at all the meetings of the society and Board, and shall discharge the duties usually devolving upon such officer in other like situations.

Article 5. The Directors and other officers constituting the Board of Control, shall deliberate upon and devise such means, as may, in their judgement, most effectively carry out the objects of the society designed to be accomplished by this society.

Article 6. The society shall keep a fair record of the transactions of the society and of the Board.

Article 7. It shall be the duty of the Treasurer to collect and safely keep all dues of the society; to credit all accounts; to pay out money under the order of the Board of Control, and to discharge other duties assigned to such officer. His accounts shall at all times be open for the inspection of a committee of the Board, which may be appointed for this purpose. He shall be required

Amazon “Smiles” On the Observatory

Amazon will donate 0.5% of the price of your eligible purchases to Cincinnati Observatory Center whenever you shop on AmazonSmile. Next time you shop at Amazon simply start at http://smile.amazon.com/ch/31-1665954

Lifelong Learning

Behind the Scenes

Tues. Sep. 26th 7pm
$29 per person. Sign up online.

amazon smile

You shop. Amazon gives.

Communiversity
to give bond for the faithful discharge of his duty.

Principal Source: Minutes of the Cincinnati Astronomical Society, Board of Control, March 20, 1844.

Highlights of the FOTO Meeting

August 14, 2017

By Michelle Lierl Gainey, FOTO Secretary

At the August FOTO meeting, we discussed plans for observing the upcoming solar eclipse. Dean Regas gave eclipse glasses to members who needed them. Dave Bosse announced a lecture will be given by Alan Stern, lead engineer for the New Horizon project (Pluto), at UC’s Tangeman Center, Great Hall at 3 PM on 9/8/17.

The presentation for the August meeting was given by John Ventre, COC Historian and Dr. Richard Davis, COC Museum Curator: “From Attic to Basement”. Members were treated to a tour of the Observatory featuring the fascinating historical artifacts and scientific devices that make up the Cincinnati Observatory Museum.

Did You Know….?

The great red spot of Jupiter is 15,000 miles across with winds that swirl around the outer edge at 300 mph.

Cosmic Kids Youth Astronomy

September 16th - Sold out
October 19th - Sold out
November 16th - Sold out

9:30-10:30am Grades 1-3rd
11:00-12:00pm Grades 4-6th

The Cincinnati Observatory will be hosting classes for the entire family. Explore the cosmos during our new multi-disciplinary class which helps grades 1st-6th learn and discover topics in astronomy and investigate the wonders beyond our world. This astronomy class is open to students with a curiosity about space, and their families.

The response to Cosmic Kids has been tremendous, be sure to sign up early. Sign up now for the 2018 dates beginning January 20.

Reservations are required and space is limited. Admission $5 per person per class. Observatory members are free.

If you have any questions or would like to register, contact Katie at katie@cincinnatiobservatory.org or call 513-321-5186.

Pluto’s New Horizons @ UC

Friday Sep. 8th 3:00pm
UC Tangeman Center
Great Hall

Dr. Alan Stern talks about the New Horizons mission to Pluto and the scientific knowledge gained through the exploration of the icy worlds at the edge of our solar system.

For more information, contact UC Physics. 513-556-0501.

Mitchel Society Will Honor Major Donors

By Anna Hehman

The Observatory will hold its annual Mitchel Society event on Thursday, September 21. The event celebrates the successes of the year so far and is meant to coincide with the Autumn Equinox, which this year is on the following day. The Mitchel Society event serves as a Thank You event to those who have supported the Observatory with an individual contribution, corporate gift, or grant of $500 or more. The event will include a presentation, refreshments, and – weather permitting-
viewing for those in attendance.

For more information about how to become a major donor at the Observatory, contact Development Director Anna Hehman at anna@cincinnatiobservatory.org

**Intro Into Astronomy with Dean Regas**

**Wednesday Sept. 6, 13 & 20th 7pm**

Want to kickstart a new, starry hobby? This three-night introductory astronomy course is perfect for beginners who want to know more about observing the night sky.

Led by astronomer and co-host of PBS’ Star Gazer, Dean Regas, this course will show you the stars. You will learn how to identify stars, constellations, and planets as well as viewing tips for the Moon. Each night includes viewing through the historic telescopes (weather permitting).

**Cost:** $50 for the series, $40 for Observatory members

To register call 513-321-5186 or [Sign Up Online](#)

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**Astronomy Evenings At the Observatory**

**Thursday Sep. 7, 14, 21, 28**

**Friday Sep. 1, 15, 22, 29**

8:00-9:30pm

**Free for Observatory members!**

Are you in awe with the beauty of the night sky? Do you have questions about the Universe? This is where you can get the answers.

Astronomy Evenings include short presentations on a wide variety of topics and plenty of time for your astro-questions. Tour of the Cincinnati Observatory, which as a National Historic Landmark played an important role in the history of Cincinnati and our nation. Once dark, we will view the Moon, planets and deep space treasures through the historic 1845 telescope. (Program is held rain or shine; telescope viewing if clear skies).

The topics and the night sky change week-to-week/month-to-month so you can visit often to hear and see something new.

**Free for Observatory members!**

For the latest schedule visit the web calendar then sign up online.

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**Tour the Observatory**

**Sunday Sept. 10 & 24th**

Drop in between 1-4pm

Observatory astronomers photographing the 1932 Solar Eclipse

Stop by for the whole story or just the highlights. It’s all fascinating and connects our past with your future. Free for members. Group tours by appointment.

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**FOTO Committee Officers**

Chair-Valerie Niemi
Vice Chair-John Blasing
Secretary-Michelle Gainey
Treasurer-Al Scheide

Member Representative to the COC Board:
Dave Bosse
JoAnne Pedersen
Terry Endres

To contact an Officer or Rep email craig@cincinnatiobservatory.org and I’ll forward your contact information on to them.
Welcome New & Renewing Members

Eileen Ampfer
Ann Appleton
Ellen V. Austin-Li
Barbara Autry
Rebecca Barron
Ruth Bauer
Lauren and Kurt Boehm
Don and Kathleen Burns
Elizabeth Chirlin
Boyd & Melinda Colglazier
Luann Corbeil
Amanda Corris
Tim Talbert and Tom Crawford
Adrian D’Netto
Mike Dorning
Dave Dupee
John Edwards
Sarah Coleman and Nate Edwards
Erik and Jackson Evans
Prost Macias Family
Terry Flesch
Scott Francis
Valeria J Freysinger
Lynn and Pat Frock
Jim and Carol Gardner
Jonathan Garrison
Matt Wulf and Tara Goettsch
Dave and Linda Gold
Lisa Hall
Buck Hausman
Mary Hinton
Sandra Jackson
Christina Jeffers
Lorraine Johnson
Laurie Johnston
C Keil
Paula Keil
Courtney McCormick and Tory Kellen
Steven Roussos and Olivia Kissel
Jack and Marilyn Krebs
Lisa Kuan
Dan Kuntz
Robert and Mary Kurimo

Jerry Neiheisel and Susan LaBonte
Rebecca Mason
Donna and Robert Massie
Karen McCreary
Joyce Miller
Susan Namei
Chris Olivigni
Irene Osterbrock
Mohan Pillai
Kellie Reser
Katie and Andrew Rickenbach
Chris and Nikki Ridenour
Steve Rumberg
Jeff Schmidt
Lou Schweitzer
Jon & Jacqueline Seymour
Jim and Janet Steiner
Shiv Kumar Viswanathan
Patricia and Nancy Wagner
Joshua Wallace
Nancy Lu Walters
Linda and Jim Weber
Catherine Wendt
Alita Wesley
Mike West
Cynthia Williams
Dale & Kathleen Zoller

(Listing is incomplete due to early “eclipse” deadline)

Thanks to all our terrific members, donors and volunteers!

New Members Benefits

With your membership, you become a Friend of the Observatory (FOTO) and join our family of amateur astronomers, history buffs, donors and volunteers. FOTO meets on the Second Monday of the month at 7:30 pm at the Observatory. All members and their guests are welcome to attend.

Your benefits include:

- Discounted or free admission to Friends of the Observatory (FOTO) programs
- Member’s only classes and programs
- Loaner telescopes
- Free admission to Astronomy Thu/Fri/Saturdays
- Discounts in the Gift Shop
- Free admission to the historic landmark buildings and permanent collections
- One-year subscription to the monthly FOTO e-newsletter
- Members-Only Facebook Page
- And access to the FOTO lending library.

For more information, call the Observatory at 513-321-5186.

Community Rewards Number for the Observatory

After a quick and easy sign up online, every time you swipe your Kroger Plus Card a donation goes to support the Observatory’s mission. No cost to you; no loss of fuel points. https://www.kroger.com/account/create
Green Umbrella is proud to present Great Outdoor Weekend, an annual outdoor events sampler in the Greater Cincinnati region that is held the last weekend in September. This year, Great Outdoor Weekend will take place on Sept. 23 & 24, 2017.

Great Outdoor Weekend presents opportunities for children and adults to sample the best outdoor recreation and nature awareness programs available in Greater Cincinnati region. Each fall there are over 100 events available—all are free and open to the public. Click here to jump to this year’s calendar of events.

Soar in for a payload of hands-on family activities and demonstrations! iSPACE Day is an annual event that showcases the wonders of STEM education and careers. Booths and demonstrations are conducted by local businesses that work in STEM disciplines. Along with community partners (including the Observatory) we are celebrating all things to do with space! Ride a Hovercraft, Try on a Space Suit, Launch Rockets, Drive a Robot, Look through a Telescope, and so much more. Spend your Saturday exploring the latest in 3D Printing, Aircraft Engines, Drone Technology, and other amazing advancements in STEM!

Over 4,000 kids, most from urban or underserved neighbor-hoods took part in dozens of activities at the Kid’s Expo held at Winton Woods last month. Almost half of the attendees were able to participate thanks to bus transportation provided by area organizations including the Observatory.

“Whole Again is extremely grateful for the generosity of the donors who have made it possible for our children to attend Kids Expo over the years. Many of our children have a view of their city that doesn't extend much beyond their neighborhoods. Attending Kids Expo expands their horizons and stretches their imagination concerning the beauty all around us and the wonders of nature. Thank you for blessing our children!”

It was a long, hot day under the summer Sun, but it’s great to known your efforts are making a difference in our community!

The oldest black hole is 13 billion years old.
The Great American Solar Eclipse is now in the history books. Everyone who traveled to see totality will always remember the corona with its three pearly white spikes reaching out from the black disk of the moon. Every total solar eclipse has its own corona like we have our own set of fingerprints. The sun presented us another gift that day in the form of 2 active regions. These regions had great sunspots for the photographers to focus on. For the non-photographer, they provided a “landmark” to watch the moon’s progress across the solar disk. For the observers using an H-alpha solar scope, the active regions had a few M class flares to observe. It will be interesting to see if seasoned solar observers will be able to connect part of the corona details to these active regions.

I now have to learn how to process my movie and stills. I hope to use a series of stills to make a HDR image. If anyone knows this process and is willing to give me some lessons, I would be grateful.

**Possible Habitable Planets in Nearby Solar Systems**

From Tom East

The exciting discoveries of possible habitable Earth-sized planets orbiting around stars close to us (Proxima Centauri and TRAPPIST-1) has intensified interest in life in the Universe and interstellar travel. Instruments on the ground as well as in space have increased our ability to detect possible Earth-like worlds, and new missions due to be deployed soon will only increase the rate at which we discover planets where life could exist. In this talk, we’ll explore these discovered systems, how likely they are to support life, and the possibility of finding Earth-like planets throughout the galaxy.

Davin Plateau is an astronomer specializing in research in brown dwarfs and extrasolar planets, as well as an astronomy educator and former planetarium director throughout the country. He is an adjunct instructor at the University of Cincinnati teaching astronomy and life in the universe.

Please join us on Monday, September 11, 2017 at 7:30 PM, at the Observatory for this enlightening presentation on the possibility of habitable planets in nearby solar systems.

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**A2Z+ Astronomy Class**

**“Slip of the Ellipse”**

7 pm Sunday, September 17

By Dave Bosse

The geometric shapes generated by Conic Sections are seen in all sorts of places in Astronomy, Physics and the Universe as a whole. Primarily defined by the geometric intersections between planes and cones, the intersections between cylinders and spheres, and lines and planes also generate shapes familiar to the Universe-watcher.

The September edition of the A2Z+ Astronomy class will touch on these shapes and how some of them can be seen around the Observatory.

The A2Z+ Astronomy class is held on the third Sunday of the month at 7:00 P.M in the West Wing of the Herget Building, specifically, this month on September 17th. It is free to any member of the Observatory. No prerequisite knowledge of Mathematics, Physics or Astronomy is necessary.

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**Borrow a Telescope!**

By Dean Regas

As a member of the Observatory, you can borrow a scope through the Telescope Loan Program. For more info please call Dean at 513-321-5186.
Craig’s Corner
Craig Niemi, Executive Director

I am writing this article a couple of days before heading out west for the Great American Eclipse but I’m confident that several things will be true on our return.

While the archives are scarce about the number of visitors for Halley’s Comet in 1910, Monday August 21st will go into the record book as the busiest day in recent, if not our entire, history.

With their limitless passion, energy and expertise, our talented staff & volunteers will once again do an amazing job sharing the eclipse and the Observatory.

Dawson Springs will have a memorable eclipse experience. Everyone will need Tuesday the 22nd to recover!

And thanks to everyone for helping out day-of and in the day’s preceding!

Stargazing at Stonelick
Saturdays
Sept. 16 & 23rd

The Summer Triangle.

Need help with your telescope? Get expert tips setting it up and exploring the night sky. Stargazing begins at dusk. Open to all ages. Stargazes are weather permitting.

“Like” Stonelick Stargazers for weather and holiday schedule updates.

FOTO Bylaw Changes
By Dave Bosse

To complete the merger of the COC and FOTO, which has been underway for several years, changes to the FOTO Bylaws and the COC Code of Regulations have been necessitated. Preliminary changes to the FOTO Bylaws were published and approved last August (2016) by vote according to the Bylaws of FOTO.

The COC Board has completed changes to their Code of Regulations (Bylaws by a different name) and final reconciliation changes must now be made to the FOTO Bylaws. The COC Board must approve of the FOTO Bylaws, which they have done in a preliminary fashion. We intend on presenting a final version of the FOTO Bylaws for approval at the November COC Board meeting, which means FOTO must vote for approval of the changes at the October FOTO general meeting.

The reconciliation has required just a few, very minor changes, simplifying the FOTO Bylaws Article 3 Privileges of Membership.

The current Article 3 from the FOTO Bylaws:

Article 3 Privileges of Membership

A member in good standing is entitled to:

1. Attend regular monthly and special meetings.
2. Attend Astro Thursday and Friday events, and other designated COC events and lectures, free of charge.
3. Receive the monthly newsletter.
4. Right to Vote – members eighteen years of age or older are eligible to vote.
5. Hold Office – members eighteen years of age or older and have been in good standing for one (1) year are eligible to hold office of the FOTO Committee and COC Board Representative.
6. Enjoy any and all privileges as established by FOTO in agreement with the COC.

To summarize the changes:
1. Since membership in the COC is synonymous with membership of FOTO, listing specific benefits of FOTO membership in the FOTO Bylaws would require changes to the FOTO Bylaws any time there was a change to COC membership benefits. Referencing the benefits listed in the COC membership application externalizes the benefit listing and eliminates the need for specific listing. The listed benefits removed from Article 3 are the benefits listed in the membership application form.
2. Re-wording the right to vote and right to hold office articles to recognize the nature of FOTO now as a standing committee of the COC. The change also recognizes that the FOTO representatives to the COC Board are nominated by FOTO, but must be approved by the COC Board.
3. FOTO KIDS no longer exists as an activity of

<table>
<thead>
<tr>
<th>The proposed new Article 3 for the FOTO Bylaws:</th>
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<tr>
<td><strong>Article 3 Privileges and Rights of Dues-Paying Members (as Defined in the Current Membership Brochure)</strong></td>
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<tr>
<td>A member in good standing is entitled to:</td>
</tr>
<tr>
<td>1. All of the rights and benefits listed in the current COC membership application brochure.</td>
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<tr>
<td>2. Right to vote--members eighteen years of age or older are eligible to vote for the FOTO Committee Officers and to vote to nominate the FOTO Representatives to the COC Board.</td>
</tr>
<tr>
<td>3. Hold Office – members eighteen years of age or older and have been in good standing for one (1) year are eligible to hold office of the FOTO Committee and COC Board Representative.</td>
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Opportunity for discussion will be provided at the September FOTO general meeting.
Connect with Your Observatory

The Cincinnati Observatory Center
3489 Observatory Place
Cincinnati, OH 45208
513-321-5186

Observatory Staff:

Craig Niemi,
Executive Director
craig@cincinnatiobservatory.org

Dean Regas,
Outreach Astronomer & Interim Volunteer Coordinator
dean@cincinnatiobservatory.org

Katie Vaughn,
Outreach Educator
Katie@cincinnatiobservatory.org

Anna Hehman,
Development Director
anna@cincinnatiobservatory.org

John Ventre,
Historian
john@cincinnatiobservatory.org

Kelsey Sturgill,
Admin. Assistant & Docent
kelsey@cincinnatiobservatory.org

Samantha Pepper,
Outreach Educator
samantha@cincinnatiobservatory.org

Our Partners in Science, Sustainability & Local History