Membership News

By Michelle Lierl Gainey

Hello Friends! Despite the cold, I hope you are getting some opportunities to enjoy the beautiful winter sky, with its bright constellations, nebulae, galaxies and star clusters. Those of us who leave for work or school early in the morning also have the chance to see all 5 of the naked-eye planets (Jupiter, Saturn, Mars, Venus and Mercury) in the pre-dawn sky!

At the FOTO Meeting in January, the proposal for the merger of FOTO with COC passed unanimously. This proposal is now being reviewed by the COC Board. Thanks to all who have worked together to help our Observatory operate more cohesively.

Scott Gainey and Frank Huss are working on arranging for new clothing items for sale through the gift shop. The following will be available: T-shirts in Observatory Blue, with the COC logo on the front (left chest)silk-screened in white; Polo T’s, same color, with the logo embroidered in white; Denim shirts with the logo embroidered in red; Hooded sweatshirts (navy blue) with logo embroidered in white; and ball caps (tan, with the COC logo in navy). Scott and Frank will try to have representative examples of these at the February FOTO meeting, and you can sign up for what you would like to buy.

If you would like to purchase one or more of these items and will not be at the February FOTO meeting, please e-mail me at mlierl@fuse.net to let us know what you would like to buy, and what size: Men’s or Women’s: Small, Medium, Large, XL, or XXL. This is NOT an order, but if you let us know what you are interested in, this will help to order an appropriate number of each style and size. We will also have additional shirts, sweatshirts and ball caps available in the gift shop, in case you decide to buy something else later.

The FOTO Forum is up and running! You can use this forum site to communicate with fellow FOTO members, post questions about astronomical topics, share
your astro-photos or links to interesting articles you have found, work on projects with other members interested in them, etc. The address is http://cincinnatiobservatory.vbulletin.net/. Click on the “register” link on the top right, fill in your information, and an e-mail will go to Craig Niemi who will confirm you as a FOTO member. You will receive an e-mail confirming you as a participant in the Forum.

**FOTO's February Meeting**

By Dave McBride

Slawomir J. Bucki “Bookie” will be our featured speaker on February 8th at our 7:30 pm meeting.

His topic will be *The Dark Matter Halo of the Milky Way Galaxy and Why It Matters*.

Bookie will talk briefly about the discovery of Dark Matter and its importance in the current-best “Lambda - Cold Dark Matter” cosmological model. He will also touch briefly on the possible nature of Dark Matter and how its characteristics affect the evolution and appearance of the Universe.

He will also discuss how the shapes of galactic Dark Matter halos can help us to put additional constraints on the nature of Dark Matter and resolve some of the uncertainties of the Cold Dark Matter model. This will include what we currently know about the Milky Way Dark Matter Halo shape, and what we can conclude from this knowledge about the “Lambda - Cold Dark Matter” model.

---

**Topics in Astronomy with**

**Dean Regas**

*African Skies*

Tuesday February 17th 7-9pm

**Astronomy Software & Apps**

Tuesday March 8th 7-9pm

**Transit of Mercury**

Tuesday April 12th 8-10pm

**Our Marvelous Moon**

Tuesday May 17th 8-10pm

**Our Spectacular Sun**

Tuesday June 14th 7-9pm

These fun and laid-back classes for beginners focus on a variety of topics and will surely keep you looking up!

Astronomer Dean Regas leads these classes and will also be your guide to the winter stars and constellations and point them out with you in the real sky with the Observatory telescopes (weather permitting). $15 per person $12 for members.

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

---

**Astronomy Evenings at the Observatory**

Thursdays… February 4, 11, 18 & 25

Fridays… February 5, 12, 19 & 26

(All events 7:00-8:30 pm)

**Free for Observatory members!**

Are you in awe with the beauty of the night sky? 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.
Lifelong Learning with UC Communiversity

Communiversity
Bring your sense of fun, adventure, and curiosity.

Behind the Scenes
Wed. February 17th 7pm

Mysteries of the Universe
Tues. February 23rd 7pm

Constellations of the Season
Wed. March 2nd 7pm

Dance of the Gods
Fri. March 11th 7pm

All classes held at the Observatory. Cost: $29 per person. To register call 513-556-6932 or go online.

MoonDay Monday

Monday, February 15th 7-9 pm

Attention Moon lovers and Luna-tics! This is one program you cannot miss.

The Cincinnati Observatory will show you the Moon: phases, features, eclipses, rocks, missions, myths, and green cheese. **Moon-day Monday** includes talks and tours by local Moon experts. Then, the Moon will hit your eye like a big pizza pie when you look through our historic telescope (weather permitting).

Cost: $7 for adults, $5 for kids.
**No reservations required.**
For more information, please call 513-321-5186.

Stargazing at Stonelick State Park

Saturdays – February 6th & 13th

*The Bright Stars of Winter.*

Need help with your telescope? Whether its 60mm or 30 meters, bring it for expert tips setting it up and exploring the night sky. Stargazing begins at dusk. Open to all ages.

Stargazes are weather permitting. “Friend” the Stonelick Lake Stargazers Facebook page for weather and schedule updates.

---

Intro to Astronomy with Dean Regas

April 13, 20 & 27th 8 pm

Resolve to learn more astronomy in 2016. This 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.

$50 for the series
$40 for Observatory members
Sign Up Online or call 513-321-5186.

---

Monthly Friends of the Observatory (FOTO) Planning Meeting

By Michelle Gainey

Our next meeting will be Thursday, February 18, at 7 pm. The planning meetings are open to all members. We encourage your participation in the discussion of future member activities.

---

Did You Know. . .

**Quasars can be 100 times more luminous than our Milky Way Galaxy.**
Craig’s Corner

By Craig Niemi, Executive Director

We’re saddened by the news of the untimely passing of our two of our volunteers, Angela Wilson and Olivia Erhardt.

The Observatory’s successes over more than the past two decades - from the saving of the Observatory in the 90’s, to our current STEM programming and preservation efforts - were only possible through the time and efforts of our volunteers.

When we joined as volunteers in 1999 we met some of the most amazing, talented and dedicated people I’ve ever worked with. Most are still actively involved. Over the years more have discovered their place at the Observatory and our current volunteer roster is nearly 200!

Our sincere condolences go out to Angela’s and Olivia’s friends and family.

And best wishes to the rest of our Observatory family.

History & Museum Notes

Tour the Observatory

February 14th & 28th
Drop in between 1-4 pm

We’ve Added More to See & Explore!
Mirror Grinding & Telescope Making.

Stop by for the whole story or just the highlights. It’s all fascinating and connects our past with your future.
$5 per person suggested donation. Free for members. Group tours by appointment.

It’s Tax Time!

Cindy Amneus, Chief Curator and Curator of Fashion Arts at the Art Museum, and our own Dean Regas teamed up for a presentation on art & astronomy.

They explored how fashion designer Elsa Schiaparelli was influenced by her uncle, the famed astronomer Giovanni Schiaparelli.

We’ll be looking for other opportunities to collaborate with the Art Museum!

Volunteers!

The Observatory serves over 25,000 members of our local community with exciting, inspiring school, scout and public programs. To learn how you can make a difference in our community contact John Ventre, Volunteer Coordinator.

Since the Ohio History Fund started in 2012, it has made grants to 33 history projects in 22 counties for a total of $348,000. Proving that there is a great need for the History Fund, it has received 215 grant applications from 52 counties, totaling $2.8 million in requests!

As a member of the Ohio Local History Alliance the Observatory is eligible to apply too!

Your tax-deductible donation goes to support history projects in local Ohio communities.

And it’s a good thing!
A2Z+ Astronomy
A Few New Things

By Dave Bosse

Fulfilling the mission of making this the Year of Current Topics in the A2Z+ Astronomy class kicks into ultra high gear in February with a couple of topics that could not be more current. The first topic for discussion is introduced by a paper published in the February(!) issue of The Astronomical Journal by Kuiper-Belt aficionados Konstantin Batygin and Michael E. Brown. Yes, Virginia, there is a ninth planet, or so the computer models say. Out there... way out there, and it is not an insiginificant speck!

The second topic is for now, a secret, as the paper has not yet been published or even announced, but the rumor mill grinds on. By the time you read this or perhaps by the time the A2Z+ class meets it may be old hat, but if rumors be true, this news could be of Nobel Prize significance. Have I piqued your interest?

Mark your calendars for the third Sunday in February, 7-9 pm in the West Wing of the Herget Building and join us to find out what this weighty (hint) topic might be.

No pre-requisite knowledge of Math or Astronomy is necessary. The group meets for about an hour or so and is free to any member of the Observatory.

Welcome to Katie Vaughn!

In January Katie joined Dean and Aaron in offering outreach programs to schools and field trips to the Observatory. Katie has tremendous experience working with younger students and has taught at the Cincinnati Zoo and the Museum Center.

For more information on the Observatory’s STEM K-12, Scout & Teacher programs contact:
Dean Regas
dean@cincinnatiobservatory.org
Aaron Eiben
aaron@cincinnatiobservatory.org
Katie Vaughn
katie@cincinnatiobservatory.org

Meet Me Outdoors

Looking for one site to find this spring’s best outdoor recreation events? Stargazing, hikes, biking, everything outdoors.
http://meetmeoutdoors.com
Membership, Member Programs & Volunteers
For New Members

With your membership, you become a Friend of the Observatory (FOTO), 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
- Availability of loaner telescopes and instruction
- Free admission to the year-round Astronomy Thursday/Friday programs
- Discounts in the Gift Shop
- Free daily admission to the historic landmark buildings and permanent collection.
- One-year subscription to the monthly E-newsletter
- Members-Only Discussion Forum. Links are on the website or http://cincinnatiobservatory.vbulletin.net

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

Did You Know. . ..

If the Earth were crushed to a diameter of just two inches, that’s the density of a black hole.

2016 COC Calendars
By Scott Gainey

The 2016 Calendar is here! As usual, it includes a wonderful collection of works by astrophotographers Fred Calvert, Eric Africa and Steve Rismiller.

This year showcases work by members of the new class of astrophotographers who recently completed the year-long training coordinated by Fred, with assistance from Eric and Steve.

Available in the gift shop.

Highlights of the January FOTO Meeting
By Anne Schmid

FOTO members voted to approve the FOTO-COC merger proposal. You can read the proposal on the COC member forum: http://cincinnatiobservatory.vbulletin.net/.

Tom East presented on the elements of citizen science: curiosity, exploration, observation, and contribution. Zooniverse.org and other websites provide many diverse ways to participate.

Daytime Drop-Ins

By Dean Regas

Did you know that as a member of the Observatory you could borrow one of the very fine telescopes in the FOTO Telescope Loan program? For a whole month you could be enjoying the wonders of the night sky with a significant telescope without significant monetary investment.

Learn firsthand how a telescope performs. Turn the telescope lingo that you might have heard into practical experience. Count the craters on the moon.

For more info, or to borrow a scope, please call Dean or Craig at 513-321-5186.

The Observatory is now open Noon to 4 pm Monday through Friday for drop-in visitors. This year the Observatory was listed as one of the Top 25 Attractions in the Tri-state and more and more folks are coming to explore our history, telescopes and get their questions answered.
Stewardship

The Astronomer’s Workshop

Astronomers are an inventive, inquisitive and frugal group; and the astronomers at the Observatory were no exception. In the basement of the 1873 Observatory was a workshop where the astronomers, built and maintained their telescopes and other instruments. What had been for decades an “out-of-sight” place to store everything, is now a re-creation of the workshop featuring many of the tools that had been stored all around our campus.

The project started off with the generous donation by Fred Sanborn & Janet Dieman of two workstations.

Now Richard Davis, John Ventre and our museum interns have a dedicated place to catalog, preserve and display our collection and archives. You can see it as part of the Sunday History Tours.

There is a massive amount of museum work that needs to be done. Volunteers are welcome!

Welcome New & Renewing Members!

Suzette and Fred Albrecht
Chris Anderson and Mary Ellen Finnegan
Jonathon Bales
Bonnie Bell
John and Tricia Bevan
Paul Buescher
Burdette Family
Olivia and Richard Canada
Lisa Conner
Stacy and Scott Crawford
Jason Currie and Michelle Kilcoyne
Jean Davison
Mike Dorning
Brianna Eckhardt
Jeff Eldridge
Richard and Joan Finan
Jeff Foster
William Foster
Tim Schirmang and Brianna Frappier-Schirmang
Mel and Connie Gertz
Richard Glaser
Ralph and Marzetta Goldsmith
David & Robin Griggs
Michael Hamel
Scott and Andrea Heile
Colleen Hines
Richard E. Hunter, Jr.
Kent Johnson

Kimberly and Timothy Kennedy
Oliver Loyd and Renata Kenney
Richard and Sara Jane King
Robin and Bradley Koby
Greg and Mary Land
Robert C. Lanphier, III
Jeff Lay and Vanessa Holmes
David and Rini Lee
Richard and Patricia Lyke
Maureen and Steven MacIntyre
Lyn Marsteller and John Pinney
Joshua Martini
Linda McKinney
Michael and Susannah Miritello
Jim and Marty Neumeister
Craig and Valerie Niemi
Steve Nienhaus
JoAnne and Poul Pedersen
Terry and Rosemary Powell
Sachin Rajakrishnan
Max Randolph
Todd and Lori Reese
Becky and Stan Regas
Doug and Laurie Ryan
Richard and Susan Schmidt
Peter & Maggie Schneider
Scott and Jessi Schwarz
Brian and Valerie Scott
Jen Seiser
Maya Sepulveda
Theresa Siemer
Meta and Jay Sien
Henry and Jodi Stacey
Gary and Nancy Strassel
Jim Traynor and Molly Talbot
Suzanne and Tom Terwilliger
Douglas Troy
Harsha and Nagaraja Turaga
Claudia VanWye
Joe and Darlene Verkamp
Amy and Brian Walker
Desiree Willis
Caitlyn Wilson
Mike and Ruth Wilson
Angie Woods
Art Woods
Dave Young

Thanks for your generous support! You make what we do possible.
August 21, 2017. I know that is not a date for your 2016 astronomy calendar, but it is a date for us all to have in our minds. On that date, there will be a Total Solar Eclipse observable in the US. You should plan to be in the eclipse path to witness nature’s best shows.

One of the best ways to observe the eclipse is with binoculars. Front solar filters are needed for the partial phases and no filters for totality. I used 10x70 binoculars while observing the total eclipse in Aruba and was blown away by the view.

Binoculars present a 3D like view of the black moon with a sun’s pearl white corona shining around the moon. The red prominences were spectacular in contrast. The sky was a dark blue and some faint stars could be seen in the same view.

The advantage of large 10x70’s over smaller binoculars is the light gathering power of 70 mm objective lenses. The contrast in color is dynamic. The resolution of the faint wisps in the corona is easily observed. Fainter stars will be seen with larger binoculars. This holds true for night stargazing too.

The binoculars can be hand held or mounted on a photo tripod. That is your choice. One consideration on tripod mounts is the fact that the event will be high in the sky for most of the eclipse track making it more difficult to look up while standing under the mounted binoculars. Start planning now for the 2017 eclipse.

Observatory Support Fundraising News

Anna Hehman, Fundraiser Committee, seeks volunteers to help plan Observatory fundraisers.

2016 has gotten off to a great start in development - Valentine’s Night is coming up on Sunday, February 14. The event is one of the Observatory’s most popular fundraisers, having sold out back in mid-January!

Fundraisers are a key element of development revenue, and we are currently looking for volunteers to help plan these important gatherings on our Fundraiser Committee. Individuals on the committee will meet monthly or every other month to coordinate Observatory fundraisers and ensure details are covered for successful implementation of these gatherings.

If you’re interested in supporting the Observatory by serving on this committee, or have questions about participating, please contact Development Director Anna Hehman at 513-321-5186 or anna@cincinnatiobservatory.org.

Did You Know...

Our Sun constitutes 99.86% of all the mass in our solar system.

Our Partners in Science, Sustainability & Local History

Did You Know. . .

Brown dwarfs are considered "failed stars;" their masses are too low to fuse hydrogen in their cores like a "star," but they are still much more massive than gas giant planets like Jupiter.
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
dean@cincinnatiobservatory.org
Aaron Eiben,
Outreach Scientist
aaron@cincinnatiobservatory.org
Katie Vaughn,
Outreach Educator
Katie@cincinnatiobservatory.org
Anna Hehman,
Development Director
anna@cincinnatiobservatory.org
John Ventre,
Historian & Volunteer Coordinator
john@cincinnatiobservatory.org

FOTO Board Members
President: Michelle Gainey
Vice-President: John Blasing
Secretary: Ann Schmid
Treasurer: Al Scheide
FOTO Rep: Frank Huss
Trustees:
- Chuck Fairbanks
- Aaron Eiben
- Dave Bosse
- Chris Kean
To contact a FOTO Board member, email craig@cincinnatiobservatory.org or use the Member’s Forum.

John Ruthven
Prints & Note Cards

John Ruthven’s limited edition giclee’ prints of his "Eyes of the Night" which features the Observatory are available in the Gift Shop!

The signed 14”x 20” are $150.
The total run will be limited to 250 prints.

We also have “Eyes of the Night” Note Cards with envelopes. Set of 8. $12.00 ($10 for members). Proceeds support the Observatory’s programs.

Social Media
Find us on:
facebook
twitter
Instagram
LinkedIn

Once in a Blue Moon Video

The Observatory Online
What’s Up/Calendar/
Join/Donate
www.cincinnatiobservatory.org

Members-Only
Discussion Forum
On the website or Click Here

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.
(The Observatory is #55142.)
https://www.kroger.com/account/create
Observatory’s Historical Notes

By John Ventre, COC Historian

A Note from John Jones

John Jones was an assistant astronomer at the Cincinnati Observatory from 1881 to 1882, reporting to the director, Ormond Stone. In 1882 Stone was hired by the University of Virginia to start their new, McCormick Observatory. Stone then hired John Jones to assist him at the McCormick Observatory, and eventually Jones became the director of it.

While Jones was in Cincinnati he kept a journal of his activities. The following are two interesting excerpts of his notes:

“Tuesday, Sept. 6, 1881. The summer has been a remarkably hot one, and dryer that any I remember since 1871, there having been no rain – except a little shower last week, which only laid the dust well, and didn’t do that except in a very few places – since the middle of July up to the present time. The thermometer has been over 100° F very often and during the first two weeks in July more than five hundred people died in Cincinnati from the effects of excessive heat. These weeks of July and Aug. past have been ones full of anxiety to the American people. Day after day have we watched sometimes with cheerful hope and again almost in hopeless despair, the news from the bedside of our wounded President (Garfield). Monday, Sept. 19, 1881. We (Jones and astronomer Wilson) had not proceeded very far (in our observations with the telescope) when the fire-bells began to ring. We of course thought it meant fire and went on with or work without giving further attention, but they continued so long that we again noticed and remarked that there must be a very big fire but what now seemed strange we noticed that the bell only struck one tap at a time, and just as we noticed this Prof. Stone came to the door and told us that President Garfield was dead, a telephone message having come at 10:45 p.m.. We immediately quit work and went home.

No words can express the sorrow which this sad news awakened.”

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

Astronomy Wisdom...

"Man must rise above the Earth—to the top of the atmosphere and beyond—for only thus will he fully understand the world in which he lives." —Socrates, Philosopher

New Star Gazers

Star Gazers airs locally on channels 14 and 48 and you can watch each month’s episodes on http://www.cincinnatiobservatory.org/stargazer.html

Did a Rogue Star Pass Through Our Solar System?

Astronomers have identified the closest known flyby of a star to our solar system: A dim star (Scholz’s star) that passed through the Oort Cloud 70,000 years ago. A group of astronomers from the US, Europe, Chile and South Africa have determined that 70,000 years ago a dim star is likely to have passed through the solar system’s distant cloud of comets, the Oort Cloud (image above). No other star is known to have ever approached our solar system this close - five times closer than the current closest star, Proxima Centauri.

The star's trajectory suggests that 70,000 years ago it passed roughly about 0.8 light years. This is astronomically close; our closest neighbor star Proxima Centauri is 4.2 light years distant.