



NISE
NATIONAL INFORMAL
STEM EDUCATION
NETWORK

Collaborating with experts:
How to find and collaborate
with Subject Matter Experts

Speakers

Darrell Porcello

Children's Creativity Museum
San Francisco, CA

Brandon Lawton

Space Telescope Science Institute
Baltimore, MD

Vivian White

Astronomical Society of the Pacific
San Francisco, CA

Amelia Chapman

NASA Jet Propulsion Laboratory
Pasadena, CA

Kay Ferrari

NASA Jet Propulsion Laboratory
Pasadena, CA

Tish Bresee

Kopernik Observatory & Science Center
Vestal, NY

Nick Spicher

Imagine Children's Museum
Everett, WA

Katherine Kornei

Children's Creativity Museum
San Francisco, CA

Rimma Murta

Maui Science Center
Maui, HI





**Collaborating with experts:
How to find and collaborate with
Subject Matter Experts**

February 14, 2019

**Providing a Direct Connection
to NASA Astrophysics for
Learners of all Ages**

**Dr. Brandon Lawton
(NASA's Universe of Learning/STScI)**

SMD Science Activation Desired Outcome:

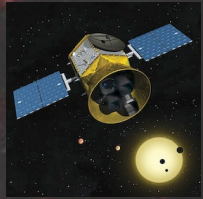
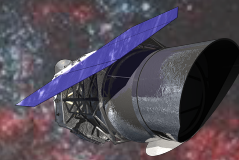
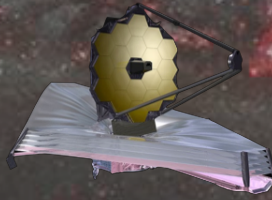
To further enable NASA science experts and content into the learning environment more effectively and efficiently with learners of all ages.





NASA'S UNIVERSE OF
LEARNING

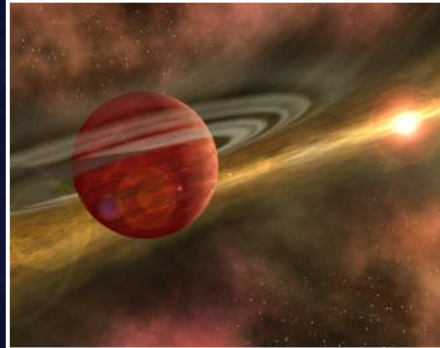
Learners of all ages and backgrounds are engaged and immersed in exploring the universe for themselves.



How does the
universe work?



Are we alone?



How did we get
here?



Providing a Direct Connection to the Science



STScI | SPACE TELESCOPE
SCIENCE INSTITUTE



Jet Propulsion Laboratory
California Institute of Technology



Smithsonian Astrophysical Observatory

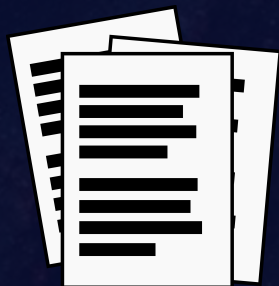


External Evaluation

GRG

Goodman Research Group, Inc.

CORNER
STONE
EVALUATION
ASSOCIATES



New Science Results
Subject Matter Experts



Our Program Elements

Data Tools &
Participatory Experiences

Multimedia &
Immersive Experiences

Exhibits &
Community Programs

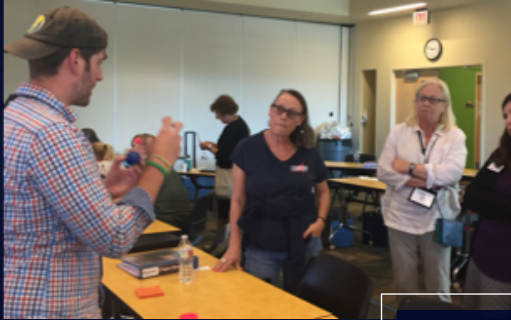
Professional Learning
Experiences



**Our program is designed
to advance NASA SMD
Objectives:**

- Enable STEM learning
- Improve scientific literacy
- Advance National Education Goals
- Leverage through Partnerships

Discover Exoplanets Exhibit Training



Training for Librarians



Virtual Presentations



Special Events



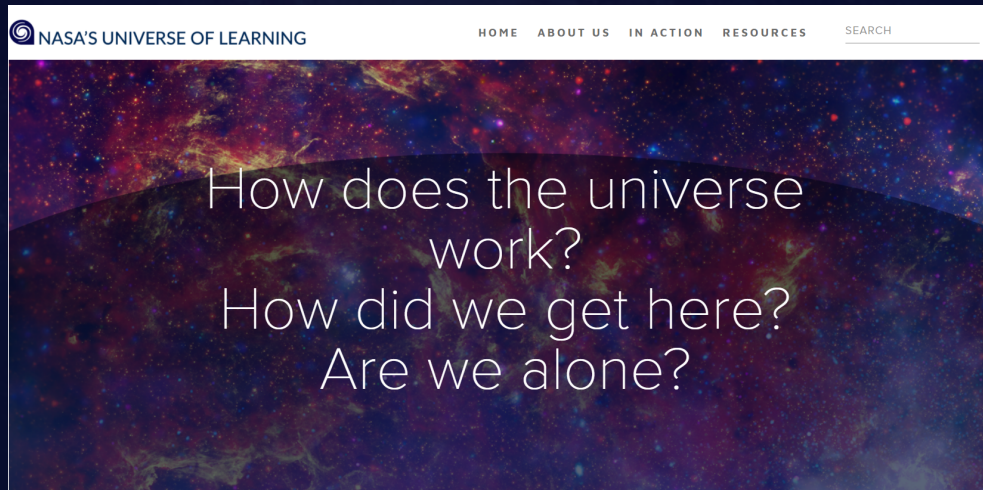
NISE-net Collaboration



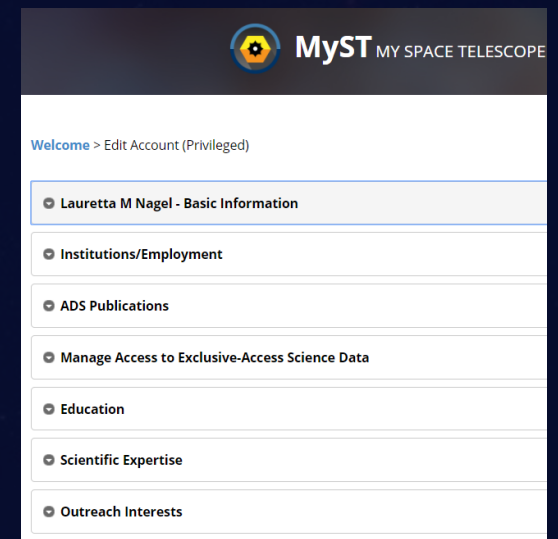
How to Connect with NASA Astrophysics Subject Matter Experts (SMEs):

- NASA's Universe of Learning is compiling a SME database
 - Talk to us directly
 - Send us an email – info@universe-of-learning.org
- Search the NASA Science SME Map (being populated) - <https://science.nasa.gov/learners/sme-map>

NASA's Universe of Learning



SME Database





<https://www.universe-of-learning.org/>

This product is based upon work supported by NASA under award number NNX16AC65A to the Space Telescope Science Institute, working in partnership with Caltech/IPAC, Jet Propulsion Laboratory, Smithsonian Astrophysical Observatory, and Sonoma State University.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Aeronautics and Space Administration.



Night Sky Network

Astronomy clubs bringing the wonders of the universe to the public



Night Sky Network

Astronomy clubs bringing the wonders of the universe to the public

In partnership with the
Astronomical Society of the Pacific



LOGIN

CLUBS & EVENTS

NIGHT SKY PLANNER

OUTREACH RESOURCES

ABOUT THE NETWORK

SITE SEARCH

FEATURED



NSN Webinar: Tour of the Universe: You Are Here

The NASA Night Sky Network welcomes Dean Regas to its monthly webinar series on Wednesday, February 27, 2019 at 6pm Pacific/9pm Eastern time. Dean will take us on a whirlwind tour of the known universe, showing us some amazing simulation software. [read more](#)

CURRENT LOCATION

Tempe, AZ, USA

Search US zip, city or place



- [set to current location](#)
- [clear location](#)
- [advanced event search](#)
- [advanced club search](#)

FOLLOW THE NIGHT SKY NETWORK



38,079 Events held since 2004

4,197,645 People Reached

CLUBS & EVENTS

EVENTS IN YOUR AREA

7:00 PM -	PAS Meeting with Guest Speaker
9:45 PM	Paradise Valley Community College -
Thu 2/7/19	Main Campus
club event	18401 North 32nd Street
	Phoenix, AZ

Night Sky Network

Astronomy clubs bringing the wonders of the universe to the public

Tips for working with clubs

- Plan ahead – request an event right from the NSN website!
- Visit a club star party or meeting
- Think about the venue
 - Lights
 - Sprinklers
- Volunteer appreciation

bit.ly/PartnerNSN

Vivian White

vwhite@astrocity.org

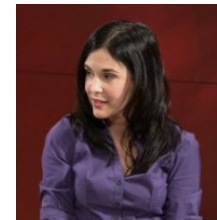
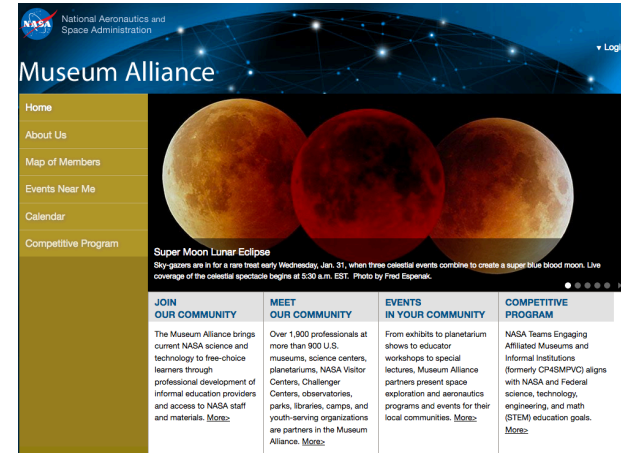


NASA's Museum Alliance is an active community of practice that provides informal educators with access to NASA resources.



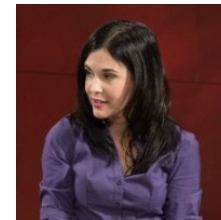
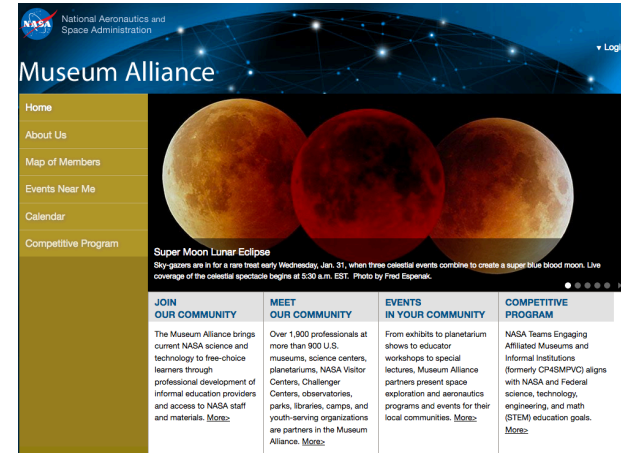
Our Platforms

- Member **website** of searchable resources



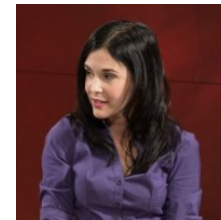
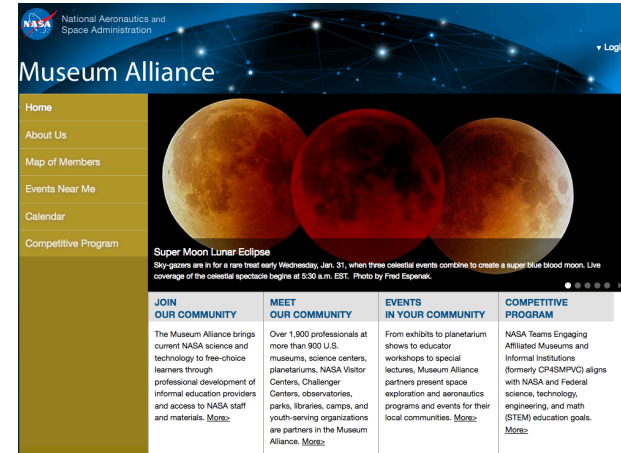
Our Platforms

- Member **website** of searchable resources
- **Calendar** of mission events, deadlines, etc



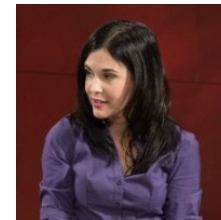
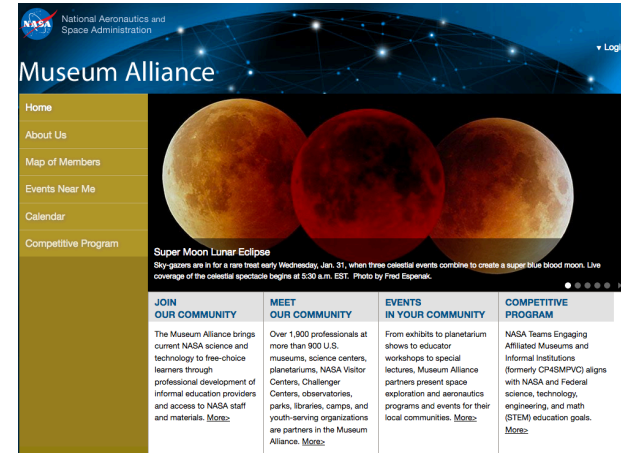
Our Platforms

- Member **website** of searchable resources
- **Calendar** of mission events, deadlines, etc
- Regular live **briefings** by NASA experts



Our Platforms

- Member **website** of searchable resources
- **Calendar** of mission events, deadlines, etc
- Regular live **briefings** by NASA experts
- Direct **assistance** to members





National Aeronautics and
Space Administration

▼ Welcome Amelia's Test Account!

Museum Alliance

Search

Home

My Account Settings

Member Events!

Event Submission Form

My Events / Report Impact

Members

Telecons

Calendar

Resources

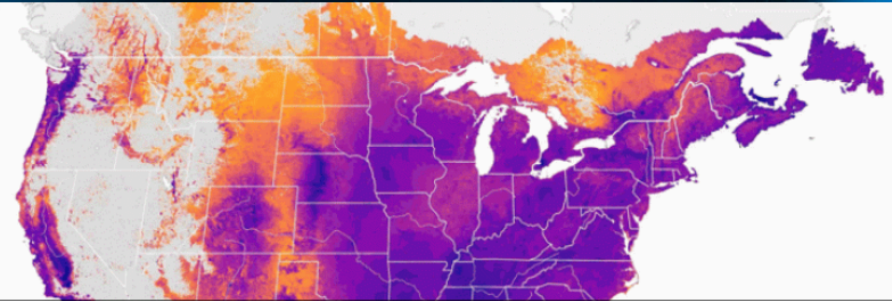
Competitive Program

Aeronautics Research

Human Exploration and
Operations

Science

Space Technology



North American Bird Maps Enter the Space Age

Birders, researchers and the general public now have a new way to monitor bird species across North America in unprecedented detail, thanks to a collaboration between NASA and the Cornell Lab of Ornithology.

JOIN OUR COMMUNITY

The Museum Alliance brings current NASA science and technology to free-choice learners through professional development of informal education providers and access to NASA staff and materials. [More>](#)

MEET OUR COMMUNITY

Over 1,900 professionals at more than 900 U.S. museums, science centers, planetariums, NASA Visitor Centers, Challenger Centers, observatories, parks, libraries, camps, and youth-serving organizations are partners in the Museum Alliance. [More>](#)

EVENTS IN YOUR COMMUNITY

From exhibits to planetarium shows to educator workshops to special lectures, Museum Alliance partners present space exploration and aeronautics programs and events for their local communities. [More>](#)

COMPETITIVE PROGRAM

NASA Teams Engaging Affiliated Museums and Informal Institutions (formerly CP4SMPVC) aligns with NASA and Federal science, technology, engineering, and math (STEM) education goals. [More>](#)

Featured Events



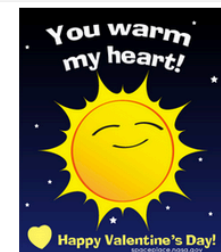
New "What's Up" Video Available

Friday, February 1, 2019



Ridiculous World of Scientific Ballooning/ von Karman Lecture Series

Thursday, February 7, 2019

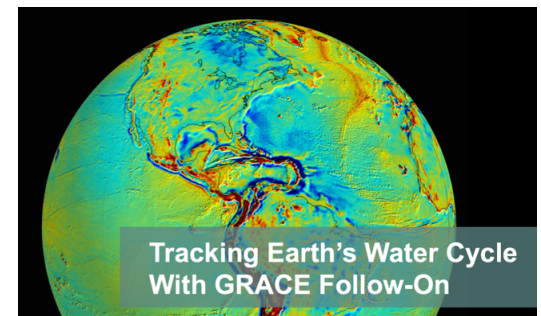


Space Valentines!

Thursday, February 14, 2019

Presentations by NASA Experts

- Live conversations, Q&A
- Presentation materials
- Key links and websites
- Average of 4 a month
- Archived recording and transcript



Find Us

<https://informal.jpl.nasa.gov/museum/>

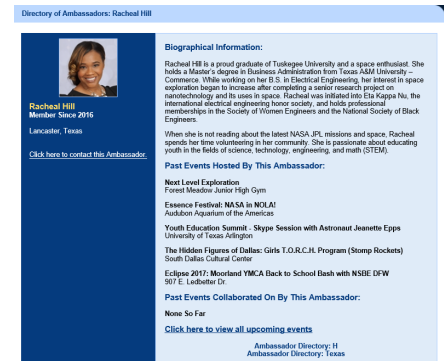
Amelia.J.Chapman@nasa.jpl.gov



Solar System Ambassadors



Who We Are



- Began as the Galileo Ambassador program in 1997; became SSA in 1999
- Currently 1,000 space-enthusiast volunteers
- 50 states, DC, Puerto Rico, Guam, US Virgin Islands and US citizens living abroad in Canada, Germany, Haiti, Netherlands, Shanghai, Spain, United Kingdom
- Solar System Ambassador Master Teacher Subgroup
- Website: www.solarsystem.nasa.gov/ssa/home.cfm
- Email address: ambassad@jpl.nasa.gov
- Management: Kay Ferrari and Heather Doyle

Solar System Ambassadors



What We Do



- Public engagement in a variety of venues
- Events (since 2001): 43,582
 - Direct Audience: 9,675,857
 - Indirect Audience: 484,946,248 readers/viewers/listeners
- Collaborate with NISE Network, Museum Alliance, Night Sky Network, STAR_Net Libraries, Girl Scouts Reaching for the Stars and other NASA-funded STEM engagement projects on training and events

Solar System Ambassadors



Why We're Ambassadors



*If what I do makes a difference in the life of just one child, then it was worth doing. --Sr. Clarice Lolich,
Solar System Ambassador*

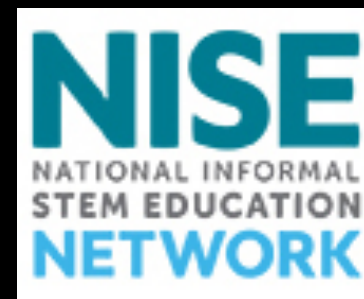
Solar System Ambassadors



Update...



Gene and Danielle today. Danielle is in her second year at Case Western Reserve University in Ohio, majoring in engineering. She's looking into NASA internships...



Tish Bresee
KOPERNIK OBSERVATORY
& SCIENCE CENTER
NASA JPL Solar System Ambassador





EXCELLENT NASA CONTACTS



Sarah Marcotte-Mars Exhibits on Loan
Jet Propulsion Lab/ Mars Education
Sarah.s.marcotte@jpl.nasa.gov

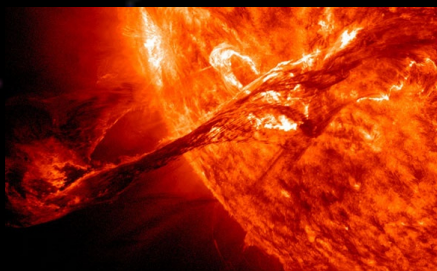


Andrea Jones

Solar System Exploration Division- Lunar!
NASA Goddard Space Flight Center
Andrea.j.jones@nasa.gov

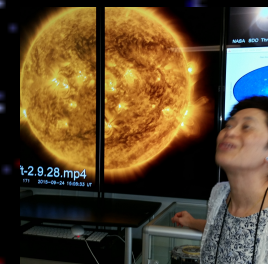


Carolyn Slivinski Education Specialist
Space Telescope Science Institute
Hubble, Chandra, Spitzer The Great Observatories
slivinski@stsci.edu



Carolyn Y Ng

PRINCIPAL SCIENTIST- Solar Telescopes-
SOHO, SDO, Parker Solar Probe
Goddard Heliophysics Division
carolyn.y.ng@nasa.gov



MARS IS RED,
NEPTUNE IS BLUE.
I SAW THIS CRATER,
AND THOUGHT OF YOU!



(L to R) Dr. Edward Kozłowski- Committee Chairman, Astronaut Col. James Lovell, Edward L. Neaselek-Buildier, James Kiley- Architect, & Richard H. Miller- Committee Member



This girl will go far!



Cassiopeia A
Remnant of a massive star's death by violent supernova explosion, imaged by NASA's Chandra/Hubble/Spitzer telescopes



KOPERNIK
OBSERVATORY



& SCIENCE CENTER



Imagine Children's Museum Everett, WA





free admission nights

3rd Friday of each month
5:30 - 9:00 p.m.

January 18 • February 15 • March 15

Bring your family, friends and neighbors for some great FUN!

Sponsored in part by:
Elizabeth Foundation

North Clinic

Tulalip Tribes Charitable Contributions

Free Admission Nights:

- Average attendance >800 per night
- Most attendees are low-income
- Half of attendees surveyed stated that they would not be able to attend the museum without free admission

EXPLORE SCIENCE
Earth & Space

Friday, May 18 • 5:30 - 8:30 p.m.

Come learn all about space and the universe with some amazing hands-on activities for all ages.

Explore the Solar System
Stomp Rockets, Hide and Seek Moon and Magnetic Fields

Explore the Universe
Pack a Space Telescope, Filtered Light and Object in Motion

A group of children and adults are gathered around a table, engaged in a hands-on activity, possibly a science experiment or craft project.

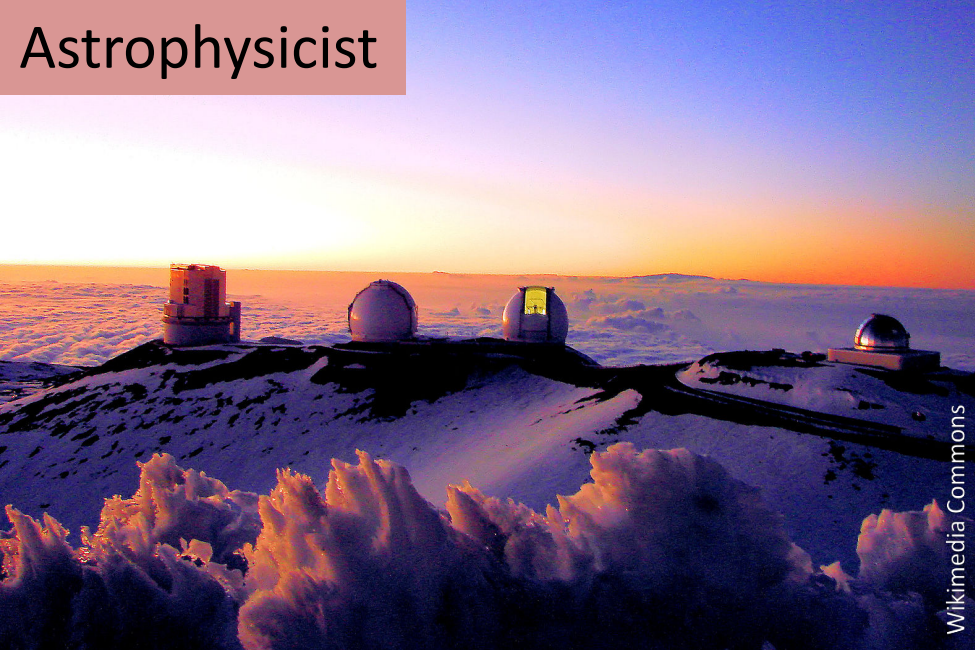
FREE event for families!

New for 2018!

NISE NASA GRANT AWARD #NNX16AC67A
NATIONAL INSTITUTE OF SPACE EDUCATION NETWORK



Astrophysicist



Museum Educator



Science Journalist

Ancient craters on Mars reveal how the planet's tilt has changed over time

By **Katherine Kornei** | Jul. 27, 2018 , 9:00 AM

Katherine Kornei, Ph.D.
---Astrophysicist, science communicator

hobbies4kk@gmail.com

Subject matter expert for:

- educational videos
- museum exhibits
- art installations
- smartphone apps
- planetarium shows



Katherine Kornei, Ph.D.
---Astrophysicist, science communicator

hobbies4kk@gmail.com

So you want a science advisor?

Be upfront—ask!

- An out-of-the-blue inquiry is fine, but a personal connection is better.

Provide details

- Project timeline, deliverables.
- Why is my expertise desirable?
- Will I be working with other science advisors?

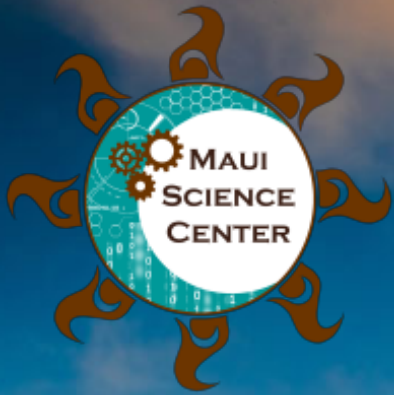
Respect different working styles

- Email vs. phone vs. in-person meetings.

Offer a stipend (maybe)

- Hourly rate, honorarium.
- Non-monetary benefits (acknowledgement, copy of a deliverable like a book).

Convey the excitement of your project and its positive impact on science education.

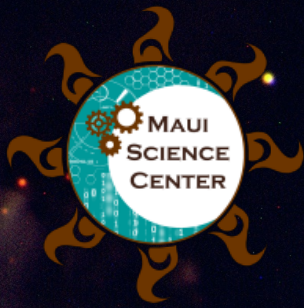


Building Community Bridges With Hands-on Science



Mt. Haleakala Summit - Science City at the 10,013 FT altitude

Image from [/haleakalacrater.com](http://haleakalacrater.com)



- The summit of Haleakala is one of the most sought-after locations in the world for ground-based telescopes (over dozen observatories).
- Sacred Mountain to Native Hawaiian community.
- Engaging community. Keeping informed.



Image by Maui No KaOi Magazine





- Our Partners: UH Institute for Astronomy, National Solar Observatory, US Air Force Research Lab, The Faulkes Telescope Project is the education arm of Las Cumbres Observatory Global Telescope Network, Amateur Astronomers.
- Public Library Events
- Institute for Astronomy Open House
- AstroDays or SunDays
- Astronomy on Tap
- School Visits
- Community Events

Background image by UH IFA



Thank You

