

Journey through the Universe

March 4 - 11, 2016

Hilo, Hawai'i





March 4-11, 2016
Hilo, Hawai'i



TO OUR JOURNEY FAMILY,

2016 marks our twelfth year of the most significant education and outreach program in Hawaii, Journey through the Universe. It is obvious the impact that this program has had on our community over the past dozen years. This year 83 astronomy educators and engineers visited over 6,500 students in over 350 classrooms in the Hilo/Waiakea District and Honokaa. This year, as in the past, our astronomers/astronomy educators were able to convey their passion and excitement for science, engineering, and education.

The Gemini led Journey through the Universe program nurtures our student's innate curiosity, provides workshops for our teachers in STEM (Science, Technology, Engineering and Mathematics) education and provides an opportunity for our community members (ambassadors) to visit the classrooms alongside our astronomers. As part of our twelfth year activities, we included an astronomy educator/teacher's workshop, a night of viewing of the partial solar eclipse, and a Galileoscope building experience for families who each received a telescope and tripod to take home for their family observing.

The DOE has elaborated in the past that "The Hilo/Waiakea complex area schools' stellar partnership with the business organizations and community is Journey through the Universe: STEM initiative. As a part of the educational system our complex area is overwhelmed with appreciation for the enthusiasm and energy this initiative has generated for our schools.... students, teachers and administrators and families. This concerted effort has made this grassroots program a sustaining reality.... for the past ten years. We humbly thank the community for their continued support as we all work together toward common goals -building a better future." Our community partners include the Department of Education Hilo/Waiakea Complex, observatories on Mauna Kea, the National Center for Earth and Space Science, the University of Hawaii at Hilo, Imiloa Astronomy Center, NASA Solar System Exploration Research Institute, the Institute for Astronomy, Bank of Hawaii, Big Island Toyota, New West Broadcasting, KTA Superstores, and the Hawaii Tribune Herald, just to name a few.

The Hawaii Island and Japanese Chambers of Commerce have also supported this effort monetarily as well as hosting a celebratory event at the Yacht Club for the past several years. The two Chambers' thank-you celebration provides a unique opportunity for astronomers, educators, and the business community to discuss and share what is our common





March 4-11, 2016
Hilo, Hawai'i



goal – to enrich science education in our schools and inspire our children to aim high.

The Journey Team would like to thank everyone involved in the Journey program for their continued support and acknowledgement of this national flagship initiative. A program of this magnitude could not happen without the dedication of our community partners and their ongoing support.

As we continue into our second decade of the Journey through the Universe program we will continue to change our student's lives as we advance science literacy through astronomy and encourage all students to reach for the stars!

Much Aloha and our sincerest Mahalo,
Janice Harvey
Journey Team Leader
Gemini Observatory
www.gemini.edu/journey





Proclamation
Presented to

Mauna Kea Observatories

WHEREAS, Journey Through the Universe promotes sustained education in the critical areas of science, technology, engineering and mathematics (STEM), and is a celebration of exploration and the joys of learning science and astronomy; and

WHEREAS, Journey Through the Universe brings together scientists, educators, community leaders and Hawai'i Island students for an unparalleled exploration of astronomy in the classroom; and

WHEREAS, Journey Through the Universe demonstrates the power of cross-sector support for astronomy throughout the community and the limitless possibilities for Hawai'i; and

WHEREAS, meeting and learning from a diverse array of Mauna Kea Observatory scientists and NASA specialist showcase the inspiring types of career opportunities our youth can aspire to, sparked by a love of STEM and the presence of the Mauna Kea Observatories here in Hawai'i; and

NOW, THEREFORE, I, DAVID Y. IGE, Governor, and I, SHAN S. TSUTSUI, Lieutenant Governor of the State of Hawai'i, do hereby proclaim March 4 - 11, 2016 as

"JOURNEY THROUGH THE UNIVERSE WEEK"

DONE at the State Capitol, in the Executive Chambers, Honolulu, State of Hawai'i, on this first day of March 2016.

DAVID Y. IGE
Governor, State of Hawai'i

SHAN S. TSUTSUI
Lt. Governor, State of Hawai'i

COUNTY OF HAWAII

Proclamation

WHEREAS, Journey Through the Universe promotes sustained education in the critical areas of science, technology, engineering and mathematics (STEM), and is a celebration of exploration and the joys of learning science. In 2015, the program celebrated its 11th anniversary on Hawai'i Island where it has engaged over 56,000 students in the past decade in STEM education in local schools; and

WHEREAS, developed by the National Center for Earth and Space Science Education (NCESSSE), Journey through the Universe is a national science education initiative that engages entire communities - students, teachers, families, and the public - using educational programs in the earth and space sciences, and space exploration to inspire and educate; and

WHEREAS, the Department of Education Hilo/Waiākea Complex and Gemini Observatory began the partnership in 2004, agreeing to work together and share Mauna Kea astronomy with students. Over the past decade students, teachers and the community-at-large have benefited from Journey Through the Universe which has grown to include dozens of local and national research and education institutions, as well as local businesses, government agencies, and individuals; and

WHEREAS, the County of Hawai'i fully encourages and supports the educators who perpetuate learning and exploration of our universe in order to excite our youth about the future, and the astronomers and engineers who instill excitement and understanding about the diverse careers available at the telescopes,

NOW, THEREFORE, I, BILLY KENOI, Mayor of the County of Hawai'i, do hereby proclaim March 7 - 11, 2016, as

JOURNEY THROUGH THE UNIVERSE WEEK

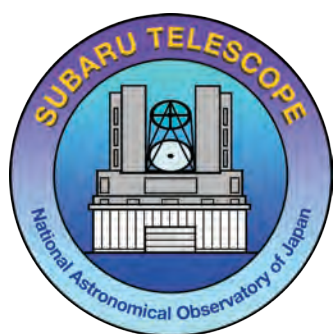
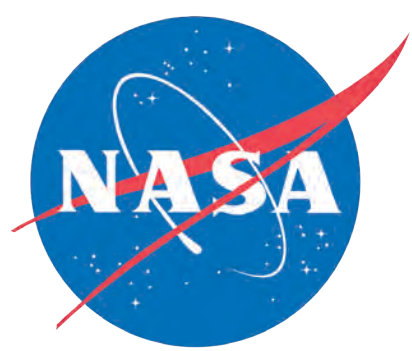
in the County of Hawai'i and urge all citizens to be mindful of the great contributions that astronomy makes to the educational and economic betterment of our island's people.

IN WITNESS WHEREOF, I have hereunto set my hand and caused The Seal of the County of Hawai'i to be affixed. Done this 7th day of March, 2016, in Hilo, Hawai'i.



A handwritten signature in black ink, appearing to read "Billy Kenoi".

Billy Kenoi
MAYOR



Journey through the Universe

Hilo, Hawai'i



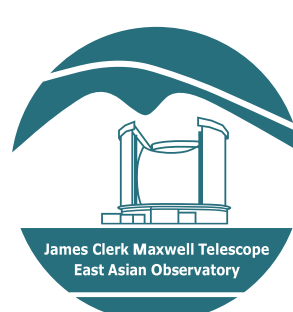
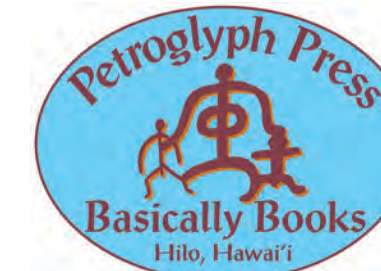
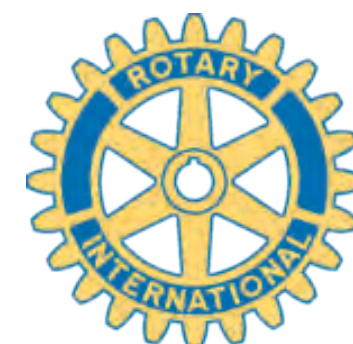
Astronomy Educators in the classroom 2016



- | | |
|---------------------|--------------------------------------|
| Alexis Acohido | Gemini Observatory |
| Nobuo Arimoto | Subaru Telescope |
| Brad Bailey | NASA SSERVI |
| Jennie Berghuis | Subaru Telescope |
| Dan Birtley | East Asian Observatory |
| Dan Birchall | Subaru Telescope |
| Kelly Blumenthal | UH Institute for Astronomy |
| Jerry Brower | Gemini Observatory |
| Joanna Bulger | Subaru Telescope |
| Andre-Nicolas Chene | Gemini Observatory |
| Madeline Close | Gemini Observatory |
| Kathy Cooksey | University of Hawaii Hilo |
| Sandra Dawson | Thirty Meter Telescope |
| Brian Day | NASA SSERVI |
| Fidencio De Leon | University of Hawaii Hilo |
| Daniel Devost | Canada France Hawaii Telescope |
| Jeff Donahue | Gemini Observatory |
| Angelic Ebbers | Gemini Observatory |
| Anna Ferre-Mateu | Subaru Telescope |
| Scott Fisher | University of Oregon |
| Ashley Garnett | University of Hawaii Hilo |
| Tom Geballe | Gemini Observatory |
| Jeff Goldstein | NCESS |
| Alyssa Grace | Gemini Observatory |
| Kathy Guyon | Gemini Observatory |
| Olivier Guyon | Subaru Telescope |
| John Hamilton | UHH, PISCES |
| Janice Harvey | Gemini Observatory |
| Guenther Hasinger | UH Institute for Astronomy |
| Yutaka Hayano | Thirty Meter Telescope - Japan |
| Saeko Hayashi | Subaru Telescope |
| Stephanie Henry | NASA Marshall Space Flight Center |
| Michael Hoenig | Gemini Observatory |
| Matthew Hosek | UH Institute for Astronomy |
| Stewart Hunter | Mauna Kea Support Services |
| Masa Imanishi | Subaru Telescope |
| Russell Kackley | Subaru Telescope |
| Carolyn Kaichi | UH Institute for Astronomy |
| Yuko Kakazu | Subaru Telescope |
| Rob Kelso | PISCES |
| Mary Beth Laychak | Canada France Hawaii Telescope |
| Chien-Hsiu Lee | Subaru Telescope |
| Julien Lozi | Subaru Telescope |
| Nadine Manset | Canada France Hawaii Telescope |
| Rachel Mason | Gemini Observatory |
| Callie Matulonis | East Asian Observatory |
| Tony Matulonis | NASA Infrared Telescope Facility |
| Peter Michaud | Gemini Observatory |
| Joseph Minafra | NASA SSERVI |
| Brain Mitchell | NASA Marshall Space Flight Center |
| Junichi Noumaru | Subaru Telescope |
| Prashant Pathak | Subaru Telescope |
| Emily Peavy | Imiloa Astronomy Center |
| Yvonne Pendleton | NASA SSERVI |
| Andrea Petric | Gemini Observatory |
| Tae-Soo Pyo | Subaru Telescope |
| Bo Reipurth | UH Institute for Astronomy |
| Marc Roberts | University of Hawaii Hilo |
| Rodrigo Romo | PISCES |
| Dennis Schatz | Pacific Science Center |
| Sharon Schleigh | East Carolina University |
| Derich Schmidt-Chya | University of Hawaii Hilo |
| Jessica Schonhut | UH Institute for Astronomy |
| Jenny Shih | Gemini Observatory |
| Jasmin Silva | University of Hawaii Hilo |
| Doug Simons | Canada France Hawaii Telescope |
| Evan Sinukoff | UH Institute for Astronomy |
| Breann Sitarski | University of California Los Angeles |
| Robert Sparks | NOAO |
| Gordon Squires | Thirty Meter Telescope |
| Niki Thomas | UHH, PISCES |
| Chad Trujillo | Gemini Observatory |
| John Vierra | Gemini Observatory |
| Josh Williams | Subaru Telescope |
| Tom Winegar | Subaru Telescope |
| Sherry Yeh | Subaru Telescope |

For more information contact Janice Harvey at: jharvey@gemini.edu

www.gemini.edu/journeycp16



Journey through the Universe

"A brief history and long future"

Science News Writer & Photographer Alyssa Grace | Graphic Designer Tiffany Erickson

We believe that to continue the legacy of scientific exploration, every generation must be inspired to learn what we know about our world and the Universe, and how we have come to know it. We also believe that it takes a community to educate a child... and a network of communities to reach a generation." This is Journey through the Universe's mission statement.

Journey through the Universe is a volunteer-based annual outreach event hosted by Gemini Observatory in which "Astronomy Educators" go into classrooms in the Hilo-Waiakea area and teach students for one class period about various aspects of space science and their careers.

Astronomy Educators are anyone who is knowledgeable and passionate about sharing their knowledge of space science. This includes astronomers, outreach specialists, engineers, professors, IT and more. At least ten of the participants this year are coming from the mainland just for Journey including NASA SSERVI (Solar System Exploration Research Virtual Institute).

Nearly all of the Mauna Kea observatories participate in this large event that reaches over 5,000 students in one week. This year, there are 84 people going into classrooms which is one of the largest groups yet. However, "Journey isn't just about the teaching, it's about coming together as a community," Janice Harvey, the Community Outreach and Education Programs Leader at Gemini Observatory said. This year is Hilo's 12th Journey through the Universe and Janice Harvey has been here since the beginning.

Journey through the Universe started out as a national program with a 5-year commitment organized by individual states and funded by NASA. "Big Island's first Journey had only 5 Astronomy Educators! It was very successful. But the very next year, NASA lost all of its funding," Harvey said. That could've been the end of Journey through the Universe "but the community loved what we did so much that we found funding here," Harvey said. Since then, many organizations within the Hilo community such as KTA and Big Island Toyota not only help to fund Journey through the Universe but also participate as ambassadors.

Ambassadors are a big part of what makes Journey a community effort. Ambassadors tend to be someone from within the community, like someone who grew up in Hilo or has lived here for a long time. They can also just be someone who really wants to help and be involved with Journey through the Universe without actually teaching a classroom themselves.

It's an Ambassador's job to help an Astronomy Educator prepare for their classroom visits in the way of directions to schools, helping with hands-on activities, introducing them to the class

and making them feel comfortable and supported through the program and in the classroom. Some ambassadors take their educators around the island or show them cool spots in Hilo. Some give their educators a ride to the schools they are teaching at. Others are simply there for classroom visits which can be incredibly helpful when surrounded by a sea of apprehensive teenagers.

Journey through the Universe also encompasses a series of public events including a science communication workshop at Imiloa Astronomy Center by Dennis Schatz, Senior Advisor at Pacific Science Center in Seattle, a chamber of commerce dinner at the Hilo yacht club, a partial solar eclipse viewing (location yet to be determined), and a free talk, at the University of Hawaii at Hilo by Brian Day, the Lead for Citizen Science and Community Development at SSERVI.

Here's a little more detail on the free events in case you want to go: The last total solar eclipse to happen in Hawaii was July 11, 1991. Solar eclipses happen every year, but they are only viewable from specific areas that change every year. This year Hawaii will be able to see a partial solar eclipse on Tuesday March 8, starting at 4:37pm in Hilo, reaching its maximum eclipsing capabilities at 5:37pm and ending at 6:32pm. A partial solar eclipse means only a portion of the Sun will be covered by the moon as they pass by each other in our line of view.

A partial solar eclipse viewing will be hosted by the visiting NASA SSERVI members and the location will be in either Honoka'a, Waimea, or Waikoloa. They will have solar telescopes to watch the eclipse with and more information on this incredible event. To keep up to date on the exact happenings of this viewing, follow CFHT (Canada-France-Hawaii Telescope) and Gemini Observatory on facebook. Whether or not there will be a viewing in Hilo is yet to be decided as well. The Astronomy and Physics department at

the University does have a solar telescope but whether it is used or not depends on what time the sun sets behind Mauna Kea.

One free public event that will definitely be easily accessible to students is Brian Day's talk at the University on Wednesday March 9, 7 - 8:30pm in STB (Science and Technology Building) room 108. He will be discussing NEOs (Near Earth Objects), their previous impacts (yes, that is a pun) on Earth and its inhabitants, and how we can change our future through amateur astronomy. Be on the lookout for flyers of this event on campus!

Journey through the Universe is not the same every year. It varies depending on community participation and demands and the opportunities every new year presents. For example, last year educators did not go into kindergarten or first grade classrooms because there simply wasn't enough people. But this year, Journey through the Universe is making an effort to go into K-1 classrooms with an inflatable planetarium called the Starlab throughout the spring semester. The Starlab lesson plan will include fun facts about planets in our solar system and Hawaiian stories regarding the western constellations and the Polynesian Voyaging Star Trails. This is an incredibly special opportunity that will hopefully continue next year as well.

Journey's ultimate long-term goal is to become a statewide program that involves and teaches all STEM (Science, Technology, Engineering and Math) fields, so that Hawaii students are aware of every career opportunity available. But this isn't something Gemini Observatory can accomplish alone. Even now, Journey is working on expanding its reach to the entire Big Island. Thanks to the participation of CFHT in Waimea, Honoka'a will be a part of this year's Journey through the Universe. Maybe next year, someone will step forward to expand Journey to Kona as well (there have been requests from schools for this to happen).

Organizing an event of this scale takes a lot of time, effort and passion but the benefits are worth it. "Teaching our students about various career opportunities is how we will get our children, our keiki to stay here," Harvey said.

I personally grew up on Oahu and went to public schools on the windward side of the island all my life. I never once learned that I could be a scientist. In my first year at Manoa, I took an Astronomy course and fell in love, the next semester, I moved to Hilo and I can't imagine a more perfect place. I don't think everyone has to grow up to be a scientist. But I do want every student to know what opportunities are available to them and how special these Hawaiian islands are. I don't anyone to ever miss out on a dream simply because they didn't know about it.





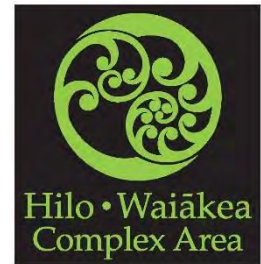
FOR IMMEDIATE RELEASE: FEBRUARY 26, 2016

Media contacts:

Janice Harvey
Gemini Observatory
jharvey@gemini.edu
(808) 315-1418

Peter Michaud
Gemini Observatory
pmichaud@gemini.edu
(808)936-6643

Kathleen Lee
Bennet Group
kathleen@bennetgroup.com
(808) 291-0421



Gemini Observatory Hosts Annual Journey through the Universe Week

Local Students Receive First-hand Opportunity to Collaborate with Maunakea Observatories Astronomers

HILO, HAWAII – During the week of March 7-11, 83 observatory professionals consisting of astronomers, engineers and astronomy educators will share their passion for science in hundreds of classroom visits as a part of Gemini Observatory’s flagship annual outreach program, Journey through the Universe.

“STEM initiatives like the Journey program are crucial to developing students’ knowledge and interest about the universe,” said Brad Bennett, the Hawai’i Department of Education (DOE) Hilo-Waiākea complex area superintendent. “We are proud of the partnership that has been established with our scientific community and look forward to working together in the future to see how we can leverage the current program into one that engages our students throughout the school year.”

Now in its 12th year in local schools, Journey through the Universe week is a robust collaboration with the Department of Education Hilo-Waiākea Complex, Hawai’i Island business community, Maunakea Observatories and NASA.

A new addition to this year’s program is a “stellar tour” of Gemini Observatory’s StarLab portable planetarium to all area K-1 classrooms. In the planetarium, students will learn about the Solar System, constellations, and Hawaiian navigational star lines and legends.

To prepare the observatory staff for classroom visits, a Science Communications workshop is planned at the ‘Imiloa Astronomy Center, led by world-renowned science educator Dr. Dennis Schatz. The workshop will focus on how to most effectively share science with students.

Other Journey events during the week include:

- An opening ceremony at the Hilo Yacht Club organized by the Hawai'i Island Chamber of Commerce and the Japanese Chamber of Commerce and Industry
- Observation of the partial solar eclipse on March 8 in Waikoloa (weather-permitting)
- A talk from NASA's Solar System Exploration Research Virtual Institute's (SSERVI) Brian Day
- Building Galileoscopes with NOAO's Robert Sparks and Peter Michaud of Gemini Observatory

"My vision for this program is to inspire local students to aim for the stars," said Janice Harvey from Gemini's PIO department, who is also Journey's program's coordinator. "This is a grassroots program that I'm very passionate about, because it gives Hawai'i students the chance to explore STEM careers as a viable choice for their future."

For more information about Journey through the Universe and its partners and sponsors, as well as images, visit <http://www.gemini.edu/journey>.

About Gemini Observatory

The Gemini Observatory is an international collaboration with two identical 8-meter telescopes: The Frederick C. Gillett Gemini Telescope on Maunakea, Hawai'i (Gemini North) and a second telescope on Cerro Pachón in central Chile (Gemini South). Together, the twin telescopes provide full coverage over both hemispheres of the sky. The national research agencies that form the Gemini partnership include: the US National Science Foundation (NSF), the Canadian National Research Council (NRC), the Argentinean Ministerio de Ciencia, Tecnología e Innovación Productiva, the Brazilian Ministério da Ciência, Tecnologia e Inovação and the Chilean Comisión Nacional de Investigación Científica y Tecnológica (CONICYT). The observatory is managed by the Association of Universities for Research in Astronomy, Inc. (AURA) under a cooperative agreement with the NSF. For more information, visit www.gemini.edu.

About the Maunakea Observatories

The Maunakea Observatories are a collaborative of independent institutions with telescopes located on Maunakea on the island of Hawai'i. Together, the Observatories make Maunakea the most scientifically productive site for astronomy world-wide. The Maunakea Observatories include: Caltech Submillimeter Observatory, Canada-France-Hawai'i Telescope, Gemini International Observatory, James Clerk Maxwell Telescope (EAO), NASA Infrared Telescope Facility, Subaru Telescope, Submillimeter Array, United Kingdom Infrared Telescope, University of Hawai'i Hilo Educational Telescope, University of Hawai'i 2.2 Meter Telescope, Very Long Baseline Array and W. M. Keck Observatory (Keck I and Keck II).

###



OSHIRASE

The Newsletter of the Japanese Chamber of Commerce & Industry of Hawai'i

Twelve Years... "The Journey" Continues to Support our Students

By: Charlene Iboshi, Education Committee Co-Chair



For a dozen years, "Journey Through the Universe," an educational collaboration with the local and international astronomy community and Hawaii Department of Education has been a success on Hawaii Island.

JCCIH and HICC supports the Astronomy Educators Reception to thank the astronomers, scientists, and engineers, who go into the schools to teach our students. This year 83 astronomy-educators visited with 6,500 students in the Hilo/Waiakea Complex Area.



JCCIH's Vice President **Russell Arikawa** and HICC President **Ka'iu Kimura** delivered supportive messages, within the backdrop of legal challenges facing astronomy's development on our island.



Over the 12 years the "Journey Through the Universe" program has encouraged our students to consider science, technology, engineering and math studies after high school, using astronomy to spark their interest.

It is with great pride I tell the world how both organizations support this grassroots program in our community," said Coordinator Janice Harvey, of Gemini Observatory.



From left to right: Carol VanCamp, Charlene Iboshi, Janice Harvey and Yu Yok Pearring

"The classrooms visits are outstanding. The messages delivered to our students...the knowledge they are given...it's truly remarkable," she added. "I would encourage all of you to be ambassadors next year and accompany the scientists into the classroom. It's eye-opening, remarkable. Our students are extremely smart, as I have been told by many of our astronomers & engineers. The exposure to science over the past 12 years has made a difference, a big difference. With NGSS (Next Generation Science Standards) now adopted by our state, our support of the DOE is more important than ever!"

The reception had over 125 attendees. Many JCCIH and HICC members served as Astronomy Educators and Ambassadors in the classrooms. Mahalo to Subaru Observatory, including **Dr. Nobuo Arimoto**; PISCES, including **Rob Kelso**, Gemini Observatory, Imiloa Astronomy Center, UH Hilo and Institute for Astronomy, TMT, NASA and NASA SSERVI, Canada France Hawaii Telescope, East Asian Observatory, Pacific Science Center, NOAO, Mauna Kea Resource Management Office, University of Oregon and University of California.

Sponsored by JCCIH and HICC



Journey Through the Universe Astronomy Educators Reception photos



Journey through the Universe Week

Mar 4, 2016 to Mar 11, 2016

The Journey initiative includes local programs for thousands of students and families, grade K-12 lessons and curriculum support materials, teacher training, and ongoing support in science content and pedagogy. The communities integrate these resources into their existing STEM education programs in both formal and informal science education venues. The result of this partnership reflects the strengths and capabilities of the community.

Hilo, Hawai'i is currently one of 10 communities around the nation that are designated Journey through the Universe sites. The Journey program brings together the local students and teachers with astronomers and engineers who not only share their passion and knowledge for science and technology but also inspire local students to aim high in their education and future careers. The Journey program as currently implemented in Hawai'i has three primary institutional objectives for the Gemini Observatory – these are to:

- Connect and engage learners with educators, scientists and engineers in an effective, lasting, and relevant manner;
- Engage the local community at all levels; and
- Foster an environment where students can pursue STEM careers and find local support and role models for their advancement.

Likewise, the local Department of Education (North Hilo/Lauaphoehoe Complex) has additional stated objectives for the program, which are to:

- Heighten awareness of science in classrooms;
- Help students meet the Hawai'i Content and Performance Standards and national standards;
- Provide rigor, relevance and relationships in curriculum, instruction and assessment;
- Tap into the rich resources that are available in the Hilo community;
- Improve teaching staff in content fields. Provide professional development, in-service training sessions, networking and articulation amongst educators, scientists, and community members who can help improve teaching;
- Educate parents and the community in the space science enterprise.

All of these elements are combined to create an education-focused and fun-filled Journey program that has experienced steady growth and been well-recognized locally and nationally.

Students to Travel 'Through the Universe' During March Program

By Big Island Now Staff

🕒 Posted February 26, 2016, 10:40 AM HST



Gemini Observatory photo.

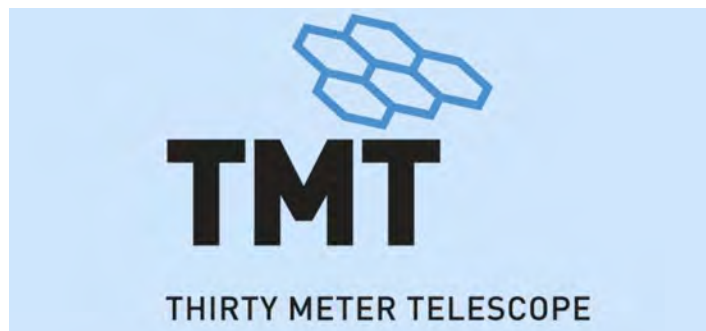
Gemini Observatory's Journey through the Universe will bring together 83 astronomers, engineers, and astronomy educators, who will make hundreds of classroom visits between March 7-11.

"STEM initiatives like the Journey program are crucial to developing students' knowledge and interest about the universe," said Brad Bennett, the Hawai'i Department of Education Hilo-Waiakea complex area superintendent. "We are proud of the partnership that has been established with our scientific community and look forward to working together in the future to see how we can leverage the current program into one that engages our students throughout the school year."

The program is in its 12th year within local schools and will feature a new addition this year, a "stellar tour" of Gemini's StarLab portable planetarium, which will be taken to kindergarten and first grade classrooms. The planetarium will help student learn about the solar system, constellations, and Hawaiian navigational star lines and legends.

In addition to the classroom visits, Journey through the Universe events include an opening ceremony at the Hilo Yacht Club, organized by the Hawai'i Island Chamber of Commerce and the Japanese Chamber of Commerce and Industry, observation of the partial solar eclipse on March 8 in Waikoloa, a talk with NASA's Solar System Exploration Research Virtual Institute's Brian Day, and building Galileoscopes with NOAO's Robert Sparks and Peter Michaud of Gemini Observatory.

"My vision for this program is to inspire local students to aim for the stars," said Janice Harvey from Gemini's PIO department, who is also Journey's program's coordinator. "This is a grassroots program that I'm very passionate about, because it gives Hawai'i students the chance to explore STEM careers as a viable choice for their future."



TMT SCIENTISTS PARTICIPATING IN ANNUAL “JOURNEY THROUGH THE UNIVERSE” TO DISCUSS SCIENCE FUN IN CLASSROOM

TMT scientists and staff will team up again with others from the local astronomy industry in bringing science to Big Island students next week as part of the “Journey Through The Universe” educational initiative.

The annual “Journey Through The Universe” from March 7-11 brings local students and teachers together with 83 astronomers, engineers and others in the STEM field (Science, Technology, Engineering and Mathematics) to share their passion and knowledge. The goal of the weeklong program is to inspire local students to aim high in their education and future careers.

In its 12th year of existence, the program has engaged over 50,000 students and visited over 3,000 classrooms in Hawaii. The program was initiated and coordinated by the Gemini Observatory and is a partnership between the State Department of Education Hilo-Waiakea School Complex, Imiloa Astronomy Center of Hawaii, the Mauna Kea observatories and NASA.

Among the TMT staff scheduled to participate at the Big Island schools that week is Breann Sitarski, a postdoctoral researcher at UCLA who works under noted astronomer Andrea Ghez. Sitarski joins Gordon K. Squires, an astronomer from the California Institute of Technology, and works on the Thirty Meter Telescope project. TMT’s Sandra Dawson will participate as a Journey Ambassador in the classrooms.

Breann Sitarski is a graduate student researcher in the Galactic Center Group at UCLA. She earned her Bachelor’s degree in Astrophysics from UCLA, and continued there for graduate school, where she is currently working on her Ph.D. in Astronomy. Sitarski studies dusty objects near the supermassive black hole at the center of our Galaxy to get a better understanding of where they come from, what they are, and how they survive in such a hostile environment. She also studies the adaptive optics system on the Keck II telescope to try to correct for aberrations that the NIRC2 instrument itself is making on astronomical data.

Gordon K. Squires is an astronomer at the California Institute of Technology, working with the Thirty Meter Telescope As well as NASA’s Spitzer Space Telescope, the Herschel Space Observatory, the Galaxy Evolution Explorer and other space telescopes with Caltech involvement. His research explores the old, cold and distant universe, understanding how galaxies formed billions of years ago, and the nature of the dark matter and dark energy that fills space.



Pacific International
Space Center for
Exploration Systems

JOURNEY THROUGH THE UNIVERSE KICKS OFF MONDAY

Posted March 4, 2016 in [Front Page Slide Latest News](#)



The Earth.

Gemini Observatory's annual outreach program, Journey through the Universe, kicks off on Monday.

The event brings together 83 observatory professionals including astronomers, engineers and astronomy educators to share their passion for science in hundreds of classrooms from March 7-11.

PISCES scientists will also be participating in Journey next week.

This is Journey's 12th year. The event is a collaboration with the Department of Education Hilo-Waiākea Complex, Hawai'i Island business community, Maunakea Observatories and NASA.

"STEM initiatives like the Journey program are crucial to developing students' knowledge and interest about the universe," said Brad Bennett, the Hawai'i Department of Education (DOE) Hilo-Waiākea complex area superintendent, in a press release. "We are proud of the partnership that has been established with our scientific community and look forward to working together in the future to see how we can leverage the current program into one that engages our students throughout the school year."

A new addition to this year's program is a "stellar tour" of Gemini Observatory's StarLab portable planetarium to all area K-1 classrooms. In the planetarium, students will learn about the Solar System, constellations, and Hawaiian navigational star lines and legends.

To prepare the observatory staff for classroom visits, a Science Communications workshop is planned at the 'Imiloa Astronomy Center, led by world-renowned science educator Dr. Dennis Schatz. The workshop will focus on how to most effectively share science with students.

Other Journey events during the week include:

- An opening ceremony at the Hilo Yacht Club organized by the Hawai'i Island Chamber of Commerce and the Japanese Chamber of Commerce and Industry
- Observation of the partial solar eclipse on March 8 in Waikoloa (weather-permitting)
- A talk from NASA's Solar System Exploration Research Virtual Institute's (SSERVI) Brian Day
- Building Galileoscopes with NOAO's Robert Sparks and Peter Michaud of Gemini Observatory "My vision for this program is to inspire local students to aim for the stars," said Janice Harvey from Gemini's PIO department, who is also Journey's program's coordinator. "This is a grassroots program that I'm very passionate about, because it gives Hawai'i students the chance to explore STEM careers as a viable choice for their future." For more information about Journey through the Universe and its partners and sponsors, as well as images, visit <http://www.gemini.edu/journey>.



Hilo (HI) Branch

3/7/16 TO 3/11/16

JOURNEY TO THE UNIVERSE
MEMBERS ASSISTING IN SCHOOL PROGRAM



Superintendent's EDUCATION UPDATE

HAWAII STATE DEPARTMENT OF EDUCATION | MARCH 2016



◀◀ MAR 4-11

CELESTIAL EDUCATION

Journey through the Universe promotes sustained education in the critical areas of science, technology, engineering and mathematics (STEM) by sending scientists, astronomers and engineers into classrooms with real-world experiments and challenges. Events around Hilo, with scientist educators in grades 2-12 classrooms during the week of March 7. Learn more: www.gemini.edu/journey

Journey in the Classrooms





Journey Through the Universe 2016

During the week of March 7-11, 83 observatory professionals consisting of astronomers, engineers, astronomy educators, and other observatory staff bring their passion for science into hundreds of local Hawai'i Island classrooms as a part of Gemini Observatory's flagship annual outreach program, Journey Through the Universe.

Now in its 12th year in local schools, Journey Through the Universe week is a collaboration with the Department of Education Hilo-Waiākea Complex, Hawai'i Island business community, Maunakea Observatories and NASA. For a full list of sponsors, astronomy educators, and events, visit our Journey Through the Universe website.



The 2016 Journey Through the Universe community Ambassador volunteers gather to prepare for a week of educational fun. Ambassadors are an important part of the program and support our local classroom presenters as well as students and their education.

Friday, March 4th - Science Communication Workshop

Several dozen local educators and astronomy professionals joined together for a workshop at Hilo's 'Imiloa Astronomy Center on Friday, March 4th. The workshop, led by world-renowned educator Dr. Dennis Schatz, shared how to effectively communicate science to learners of all ages using research on how students learn science -- and a good dose of fun, hands-on activities!



Workshop participants shared what made certain learning experiences memorable.



Dr. Schatz (center) demonstrated an activity to encourage question-based teaching.

Twelve years... the Journey Continues...

Journey through the Universe
Hilo, Hawai'i

Astronomy Educators Reception

Monday March 7, 2016

5:00 - 8:00pm, The Hilo Yacht Club

\$35 Pupu and Script Bar Reception



We invite you to celebrate Journey Week!
Meet and greet National Science Team members plus the many
astronomers and educators who are delivering this fantastic
educational program to our K-12 schools.



Join the business community in thanking them for their commitment
to the Journey Through the Universe program.

www.gemini.edu/journey for additional information

REGISTRATION DEADLINE: Monday, February 29, 2016

No-shows or cancellations after February 29 will be charged in full.

Name: _____ amt. \$35.00 Company _____

Name: _____ amt. \$35.00 Company _____

Total \$ _____

Payment method: cash check credit card: Visa, MC, Amex (Amex at HICC only)

Credit card # _____ Exp. date _____

Phone _____ Email _____

Mailing address _____ Signature _____

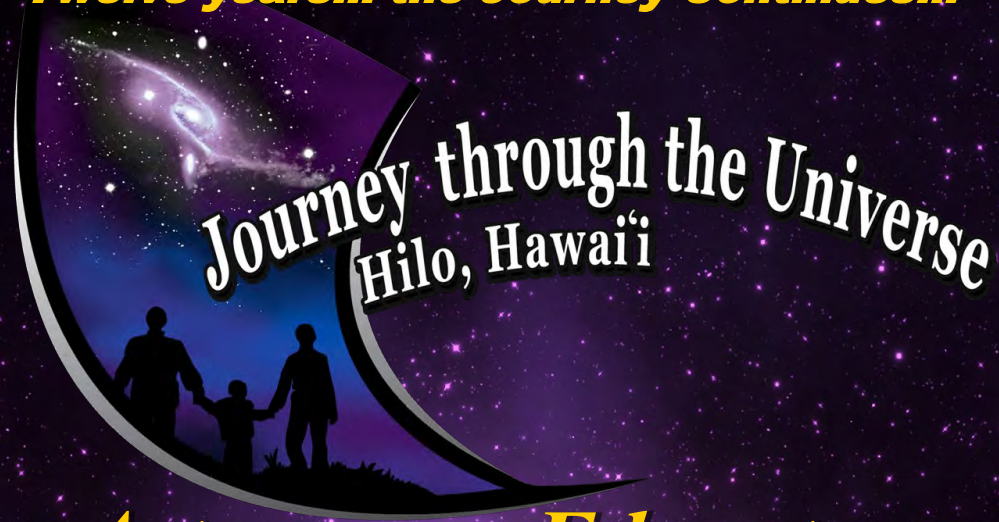
Cardholder's name (print please) _____

Payments accepted at either Chamber's offices. Credit card orders also accepted via phone, email or fax.
JCCIH 714 Kanoelehua Ave. Ste. 202 Hilo, HI 96720 • Phone: 934-0177 • Fax: 934-0178 • Email: jccih@jccih.org
HICC 117 Keawe St. Ste. 205 Hilo, HI 96720 • Phone: 935-7178 • Fax: 961-4435 • Email: admin@hicc.biz

Community Sponsors



Twelve years... the Journey Continues...



Astronomy Educators Reception

Welcome to Journey Week! Meet and greet National Science Team members plus the many astronomers and educators who are delivering this fantastic educational program to our K-12 schools.

Join the business community in thanking them for their commitment to the Journey Through The Universe program.

Monday March 7, 2016

5pm to 8pm

The Hilo Yacht Club



Sponsored by the
Hawai'i Island Chamber of Commerce
and Japanese Chamber of Commerce and Industry of Hawaii

Program

Master of Ceremonies
Newton Chu

Welcome Remarks

Russell Arikawa, 1st Vice President
Japanese Chamber of Commerce & Industry of Hawaii

Ka'iu Kimura, President
Hawaii'i Island Chamber of Commerce

Introductions

Janice Harvey
Gemini Observatory, Journey Through the Universe Team Leader

Brad Bennett, Hilo/ Waiakea Complex Area Superintendent
Department of Education

Günther Hasinger, Director
Institute for Astronomy, University of Hawaii

Yvonne Pendleton, Director
Solar System Exploration Research Virtual Institute

Doug Simons, Executive Director
Canada-France-Hawaii'i Telescope

Mahalo!

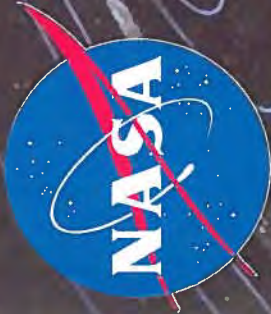


Mahalo to our 2016 Astronomy Educators

Alexis Acohido
Christian Anderson
Nobuo Arimoto
Brad Bailey
Virginia Barnes
Jennie Berghuis
Dan Bintley
Dan Birchall
Kelly Blumenthal
Jerry Brower
Joanna Bulger
Andre-Nicolas Chene
Marc Chun
Christophe Clergeon
Madeline Clergeon
Kathy Cooksey
Brian Day
Fidencio De Leon
Daniel Devost
Jeff Donahue
Angelic Ebbers
Anna Ferre-Mateu
Scott Fisher
Ashley Garnett
Tom Geballe
Alyssa Grace
Olivier Guyon
John Hamilton

Janice Harvey
Guenther Hasinger
Yutaka Hayano
Saeko Hayashi
Stephanie Henry
Michael Hoenig
Matthew Hosek
Stewart Hunter
Masa Imanishi
Russell Kackley
Carolyn Kaichi
Yuko Kakazu
Rob Kelso
Ji Hoon Kim
Shintaro Koshida
Chien-Hsiu Lee
Julien Lozi
Nadine Manset
Deanna Marks
Rachel Mason
Callie Matulonis
Tony Matulonis
Peter Michaud
Joseph Minafra
Brian Mitchell
Junichi Noumaru
Prashant Pathak
Emily Peavy

Yvonne Pendleton
Andreea Petric
Tae-Soo Pyo
Bo Reipurth
Marc Roberts
Rodrigo Romo
Kathy Roth-Guyon
Dennis Schatz
Sharon Schleigh
Derich Schmidt-Chya
Jessica Schonhut
Jenny Shih
Jasmin Silva
Doug Simons
Chris Simpson
Evan Sinukoff
Breann Sitarski
Robert Sparks
Gordon Squires
Mark Subbarao
Niki Thomas
Chad Trujillo
John Vierra
Josh Williams
Tom Winegar
Sherry Yeh



NASA's Solar System Exploration Research Virtual Institute
takes great pride in sponsoring the

Journey Through the Universe Program

In the amount of

\$5,000

On behalf of NASA's Solar System Exploration Research Virtual Institute, many
thanks for your outstanding contribution to the *education* and *inspiration* of the Next Generation.

A handwritten signature in black ink, which appears to read "Yvonne Pendleton", is written over a horizontal line.

Yvonne Pendleton, SSERVI Director



Monday- First Day in Classes and Welcome Reception

Today was the first day of classroom visits, and later in the evening, the Hawaii Island Chamber of Commerce and the Japanese Chamber of Commerce and Industry held a Welcome Reception at the Hilo Yacht Club for all of the Journey Through the Universe participants.



Hilo High students explore the world through a small telescope that they assembled.



NASA Solar System Exploration Research Virtual Institute (SSERVI) Director Yvonne Pendleton (left) handing Journey Through the Universe program coordinator Janice Harvey a significant donation to the Journey Through the Universe program from NASA SSERVI.

Tuesday-Viewing the Partial Solar Eclipse

Gemini thanks the Canada-France-Hawai'i Telescope for their continued support of the Journey Through the Universe program. This is the first year for the expansion of the program to include Honoka'a schools! On Tuesday, March 8th, NASA scientist Brian Day shared his expertise on eclipses in a talk titled, "In the Shadow of the Moon." The talk, at the Honoka'a High School Auditorium was followed by eclipse viewing at the Lava Lava Beach Bar in Waikoloa.



NASA Scientist Brian Day engages 4th grade students with rocks from Mars.



University of Oregon Physics Professor Scott Fisher at Hilo High School describing how telescopes collect light.



A HARD RAIN'S A-GONNA FALL



Brian Day works at NASA's Solar System Exploration Research Virtual Institute where he serves in lead positions for lunar and planetary mapping and modeling, citizen science, and outreach.

He is a member of the site selection & analysis teams for the Resource Prospector and Lunar Mission One missions to the Moon, and is supporting analysis of potential human landing sites on Mars. Brian was the EPO Lead for NASA's LCROSS and LADEE lunar missions.

Throughout the entire history of life on Earth, we have been at the mercy of the deadly impacts by rocks from space. Just ask the dinosaurs!

On multiple occasions, devastating impacts from Near Earth Objects (NEOs) have probably wiped out life on Earth, requiring life here to start over again. However, these events are not relegated to Earth's distant past. Each year, Earth experiences multiple near misses by asteroids and, as in the case of the Chelyabinsk event of 2013, sometimes takes a direct hit.

For the first time in the entire history of life on Earth, we now have the capability of doing something about it! In this talk, we will examine the threats posed to us by NEOs, explore strategies and technologies to mitigate these threats, and look at ways in which the amateur astronomy community can help save the world.



UNIVERSITY of HAWAI'I*
HILO

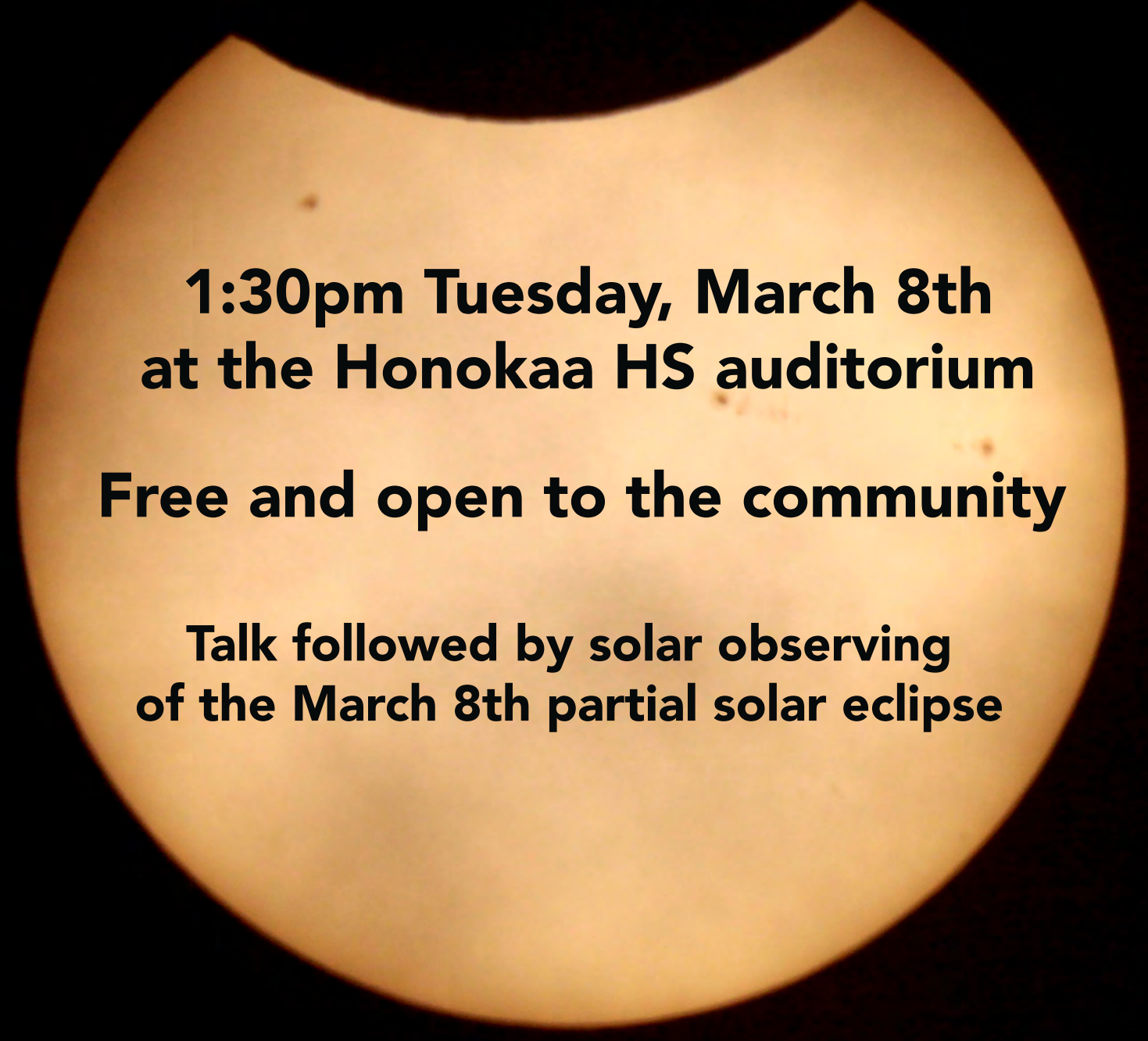


Wednesday, March 9
7:00-8:30 PM
University of Hawai'i at Hilo
Science & Technology Bldg
Room 108

In the Shadow of the Moon

Understanding Eclipses

A talk by Brian Day
NASA Ames Reserch Center



1:30pm Tuesday, March 8th
at the Honokaa HS auditorium

Free and open to the community

Talk followed by solar observing
of the March 8th partial solar eclipse

Wednesday-A Hard Rain’s A-Gonna Fall

The day started off a little wet and rainy, but nothing could dampen the mood of our classroom visitors! On March 9th, at the University of Hawaii at Hilo, renowned NASA scientist Brian Day from the Solar System Exploration Research Virtual Institute (SSERVI) shared his expertise on Near Earth Objects (NEO) and how each year the Earth experiences multiple near misses. However, now, for the first time in the history of life on Earth, we have the capability to do something about it.



Olivier Guyon from Subaru Telescope and Kathy Roth from Gemini model exoplanets for students at Waiakea High.



Subaru Astronomer Julien Lozi (left, black shirt) and Gemini Public Information and Outreach staff Alyssa Grace (right, black shirt), modeled comets for students at Waiakeawaena using dry ice, dirt, colored sand, and corn syrup.



This free, public talk was an excellent opportunity for our community to get a taste of what our local students experience during the week of Journey.

Thursday-Building Galileoscopes

On March 10th, Doug Simons, Director of Canada-France-Hawaii Telescope (CFHT) facilitated a career panel for students at Waiākea High School. The panel featured local employees from CFHT and Gemini North, who shared their personal stories and anecdotes, as well as answered questions from students about observatory careers.

Thursday evening, Robert Sparks from the National Optical Astronomy Observatory (NOAO) led a workshop in building Galileoscopes for middle school students and their families. Groups built their Galileoscopes from scratch and were able to take them home afterwards to look at the night sky!





Gemini Outreach Assistant Alexis Ann-Achido helps a family build their own telescope.

Friday-Last Day of Classes

March 11th was the last day of classroom visits.



Gemini Astronomer Rachel Mason models the relative distances to the planets in the "Toilet Paper Solar System" activity with students at Connections.



March 4-11, 2016
Hilo, Hawai'i

It Takes a Community! Thank You to Everyone Involved!

DOE Hilo/Waikeke Complex Area
Gemini Observatory
Bank of Hawai'i
Basically Books
Big Island Toyota
Caltech Submillimeter Observatory
Canada-France-Hawai'i Telescope
Carthage University
DeLuz Chevrolet
Franklin Institute Science Museum
Hawai'i Community College
Hawai'i Electric Light Company
Hawai'i Island Chamber of Commerce
Hawai'i Island Economic Development
Board
Hawai'i Space Grant Consortium
Hawai'i Tribune-Herald
IEI - Indigenous Education Institute
'Imiloa Astronomy Center
James Clerk Maxwell Telescope
Japanese Chamber of Commerce & Industry
Joint Astronomy Centre
KTA Superstores
KWXX Radio Station
Mauna Kea Astronomy Outreach Committee

Mauna Kea Visitor Information Station
NASA Infrared Telescope Facility
NASA Lunar Science Institute
National Center for Earth & Space Science
National Optical Astronomy Observatory
National Radio Astronomy Observatory
PISCES
Project Astro/Family Astro
Purdue University
Rotary Club of Hilo Bay
Smithsonian Submillimeter Array
Subaru Telescope
Thirty Meter Telescope
UCO Lick Observatory
UH Hilo, College of Pharmacy
UH Hoku Ke'a and 2.2 Meter Telescopes
UH Institute for Astronomy
United Kingdom Infrared Telescope
University of California - Berkeley
University of California - Los Angeles
University of Hawai'i at Hilo
University of Hawai'i-Manoa
University of Oregon
W.M. Keck Observatory

<http://www.gemini.edu/journey>



Jennie Berghuis
Subaru Telescope
Contact: Berghuis@naoi.org

Jennie Berghuis is an Observation System Associate for Subaru Telescope. She completed her education at the University of Hawai'i at Hilo, graduating with a B.S. in Astronomy in 2007. She gained experience through locally offered internships included studying and reducing asteroid research data collected at NASA's Infrared Telescope Facility (IRTF), working as a Night Attendant for IRTF, assisting in the fabrication, assembly, and organization of Subaru's HICIAO instrument project, and building a remotely-controlled telescope dome currently in operation on Mauna Loa. She is also currently helping to build a new telescope container that will be placed on Mauna Loa, and is taking classes towards a Physics degree at UHH. She enjoys adventure, backcountry hiking, skydiving, surfing, paddling, snowboarding, movies, playing music, and most importantly: looking up!



Dan Bintley
East Asian Observatory
Contact: d.bintley@eaobservatory.org

Dan Bintley is the Instrument Scientist responsible for SCUBA-2 at the James Clerk Maxwell Telescope. Together with a team of engineers and scientists he keeps one of the world's most advanced sub-millimetre cameras operating at its' best. He has a PhD in experimental low temperature physics from Bristol University in the UK and before coming to the JCMT, worked on the design of SCUBA-2 and testing the sensitive detector arrays. His research interests include instrumentation for astronomy, low temperature detectors and properties of superconductors. Outside of work, Dan enjoys distance running and cycling and when not at the summit of Mauna Kea can often be seen at lunchtime riding up the hill with cyclists from other observatories.



Dan Birchall
Subaru Telescope
Contact: dib@naoi.org

Dan Birchall came to Maunakea in 2004 as a volunteer at the Visitor Information Station. After part-time jobs at UH88, Keck and Gemini, he now operates the Subaru Telescope, observes supernovae with UH88, studies sustainable development and tells his toddlers about the planets.



Kelly Blumenthal

Kelly Blumenthal is a second year graduate student at the Institute for Astronomy at UH Manoa, and received her B.A. in astronomy and physics, with a minor in saxophone performance from Boston University in 2014. She is interested cosmology, or the study of how the Universe (and everything in it) formed and evolved. If you manage to find her not ruining her eyesight in front of a computer, Kelly is likely either reading some overly dense sci-fi novel, or trying desperately to teach herself to play the ukulele.



Astronomy Educator Profiles



Alexis Ann Acohido
Gemini Observatory
Contact: aacohido@gemini.edu

Alexis Ann Acohido graduated of the University of Hawaii at Manoa in 2015, where she obtained her Bachelor's of Science in mathematics. Born and raised on Oahu, she moved to Hawai'i island last year and is currently part of the Public Information and Outreach department at Gemini Observatory in Hilo, Hawai'i. In 2013, she was part of the Akamai Workforce Initiative and interned at the Institute for Astronomy on Maui where she worked on parallax ranging methods for point source objects.



Nobuo Arimoto
Subaru Observatory
Contact: arimoto@naoi.org

Nobuo Arimoto's intense interest in astronomy began when a neighbor showed him how to use a telescope when he was 11 years old. He went on to become a student of astronomy at Tohoku University, where he received his Ph.D. in astronomy in 1980. He has held positions the Observatoire de Paris-Meudon in France (1984-1988), the University of Durham in the United Kingdom (1988-1991), the Universitaet der Heidelberg in Germany (1991-1993), the Institute of Astronomy at the University of Tokyo in Japan (1993-2001), and NAOJ in Japan (2001-2012). He served as part of Subaru's Time Allocation Committee (2000-2004) and as Chair of the Subaru Advisory Committee (2004-2012). He took over Director of the Subaru Telescope in April of this year (2012). A heavy user of Subaru's telescope (59 nights as a principal investigator in a little over a decade), Dr. Arimoto focuses his scientific research on understanding galaxy evolution and the properties of individual stars within galaxies.



Brad Bailey
SSERVI/NASA
Contact: brad.bailey@nasa.gov

Brad Bailey will always be an Astrobiologist... dedicated to discovering the origin and evolution of life, both here on Earth and beyond! Brad's road to Astrobiology began with his B.S. in Physics with minors in optics, chemistry and Japanese from the Rose-Hulman Institute of Technology. In 1998, Brad was accepted into the NASA Ames Astrobiology Academy where he worked on determining the composition of the interstellar medium. From there, he received his M.S. in Astrophysics from New Mexico Tech where he used the Very Large Array (VLA) (seen in the movie "Contact"!) to look at pulsars. After working for two years at NASA Ames as a hardware engineer for the International Space Station, Brad went back to graduate school at Scripps Institution of Oceanography in San Diego and completed his Ph.D. in marine microbiology and geochemistry. His Ph.D. work included diving into submarine volcanoes in Hawai'i and Samoa via small submersibles to study how life can survive in extreme environments. Brad is now the NASA Solar System Exploration Institute Staff Scientist at NASA Ames Research Center and also directs the NASA Ames Academy, a summer student research and leadership development program. He actively speaks to the public on a wide variety of topics from astrobiology and planetary science to robotics and exploration.



Madeline Close
Gemini Observatory
Contact: mclose@gemini.edu

Madeline is the Systems Engineer Manager for Gemini Observatory, overseeing the application of systems engineering to develop and operate complex interdisciplinary systems. In 2014, she transitioned from the defense industry to join Gemini, and it was one of the most difficult but most rewarding decisions she has ever made. She previously managed and engineered communications systems for Boeing and Booz Allen. Outside of work, Madeline enjoys running, traveling and keeping up with family and friends.



Kathy Cooksey
UHH Physics & Astronomy
Contact: kcooksey@hawaii.edu

Kathy Cooksey, an assistant professor in astronomy, received her PhD in 2009 from UC Santa Cruz and was an NSF postdoctoral fellow at MIT until starting at UH Hilo in January 2014; both institutions enabled her to learn about science pedagogy and practice teaching. She researches the large-scale gaseous structure in the universe to understand how various elements cycle in and out of galaxies, over cosmic time. As for hobbies, she enjoys soccer, hiking, and camping (and crocheting and watching anime, on the sedentary side).



Sandra Dawson
TMT International Observatory
Contact: sdawson@tmt.org

Sandra Dawson is Manager, Hawai'i Community Relations, for the Thirty Meter Telescope Project. Dawson has a Bachelor of Arts degree in Political Science and a Master's Degree in International Studies from Claremont Graduate University. For 20 years as an employee of the California Institute of Technology (Caltech) she worked at Caltech's Jet Propulsion Laboratory on some of JPL's largest projects for NASA, including the Galileo, Cassini and Mars missions, and received numerous group and individual awards. With her husband, Dwayne, she moved to Hilo six years ago to work on the Thirty Meter Telescope project and has been engaged in many civic, nonprofit, and educational programs.



Brian Day
SSERVI/NASA
Contact: brian.h.day@nasa.gov

Brian Day is the Lead for Citizen Science and Community Development at the Solar System Exploration Research Virtual Institute (SSERVI). In this role, he coordinates programs with numerous internal and external partnering organizations, focusing on providing opportunities for students and the public to directly participate in NASA science and exploration. He currently acts as SSERVI's project manager for NASA's Lunar Mapping and Modeling Portal (<http://lmp.nasa.gov>), a set of tools designed for mission planning, lunar science, and public outreach. From 2010-2014, Brian served as the Education/Public Outreach Lead for NASA's Lunar Atmosphere and Dust Environment Explorer (LADEE) mission to the Moon, which flew through and studied the Moon's tenuous atmosphere. From 2007-2010 he served as the E/PO Lead for NASA's LCROSS lunar impactor mission which discovered deposits of water ice at the Moon's South Pole. He has also participated in producing the Education/Public Outreach sections for numerous NASA mission proposals. Brian has played key roles in various NASA Mars Analog

UH Institute for Astronomy
Contact: kblumy@ifa.hawaii.edu



Jerry Brower
Gemini Observatory
Contact: jbrower@gemini.edu

Jerry Brower is the self proclaimed "Information Systems guy to the stars!" (literally the stars) He has over 25 years in the information technology field, including designing data centers, cyber security, and many industry certifications from Microsoft, Cisco, Comp TIA, SANS, and others. As a security consultant, he performed audits/penetration testing on financial institutions and performed independent security research. When not on the computer at work, he can often be found in such cyber places as Tatoonie, Azeroth, or Jita in The Forge.



Joanna Bulger
Subaru Telescope
Contact: jbulger@naoi.org

Joanna Bulger is a Support Astronomer at Subaru Telescope since 2015. Originally from the UK, she obtained her Master's degree in Physics with Astrophysics at the University of Exeter, and there subsequently went on to obtain a PhD in Astronomy in 2014. Joanna first experienced observing at the summit of Maunakea in 2010 and was hooked on both the operations and environment ever since. Throughout her graduate studies Joanna has observed at a wide variety of telescopes across Northern and Southern America such as the Large Binocular Telescope (LBT) in Arizona, and the Atacama Large Millimeter Array (ALMA) in Chile. Now at Subaru Telescope, she assists astronomers with their observations, and also carries out her own research, which focuses on the formation of low-mass stars, brown dwarfs, and exoplanets. Having fallen in love with the Island since her first visit, Joanna enjoys spending her spare time outdoors exploring the beautiful landscape and ocean.



Andre-Nicholas Chene
Gemini Observatory
Contact: achene@gemini.edu

André-Nicolas Chéné is an assistant scientist at the Gemini North Observatory since early 2013. He obtained his Ph.D. in astrophysics from the Université de Montréal in 2007. He then moved across his home country ("A Mari Usque Ad Mare") to become a research associate for the National Research Council Canada at the Herzberg Institute of Astrophysics from 2007 to 2010. From 2010 to 2013, he held a joint post-doctoral position between the Universidad de Concepcion and the Universidad de Valparaiso, in Chile, and joined the science team of the VISTA Variable in Via Lactea survey. His main scientific interests are massive stars and young stellar open clusters. His expertise covers optical and near infrared imaging and spectroscopy. Two things he enjoys a lot since he moved to Hawai'i are long observing runs at Mauna Kea, and his daily bike ride to work up and down Puainako St.



Angelic Ebbers
Gemini Observatory
Contact: aeppers@gemini.edu

Angelic Ebbers is a Senior Software Engineer for Gemini Observatory. She is part of the Software Operations group as well as a Telescope Technical Manager. Angelic specializes in motion control systems, EPICS real-time development, and troubleshooting. Angelic earned a B.Sc. from York University in the Space and Communications Sciences stream, with Honors in Computer Science and Physics, plus a minor in Astronomy. Prior to joining Gemini, Angelic worked for The Herzberg Institute of Astrophysics as well as the University of Toronto Southern Observatory in Chile. Outside of work, Angelic can be found training/competing in Dog Agility, scuba diving, or reading a good science fiction book.



Anna Ferre-Mateu
Subaru Telescope
Contact: aferre@naoi.org

Anna Ferre-Mateu was born in Barcelona, Spain. She always has one eye on the Earth, the other one looking up to the skies. Anna moved to the Canary Islands at the age of 22 to pursue a major in Astrophysics. The magic of the island, so similar to Hawaii, kept her in there for 8 amazing years filled with sun, sea, high mountains, big telescopes and the intrigues from the Universe. After receiving her PhD there in 2013, from the Insitituto de Astrofisica de Canarias, Anna moved to another fascinating volcanic island, Big Island. Now she is working as a research specialist in the extragalactic field for Subaru Telescope. Her work is focused on shedding some light into the puzzle of the formation and evolution of the most massive elliptical galaxies in the Universe. Anna studies how the properties of their stars vary over cosmic time and how this evolution fits on the assumed theories. When she is not thinking about the Universe and its secrets, she likes to spend her time outdoors: surfing, skiing, diving, hiking, or simply relaxing at the beach reading a book. But her favorite hobby is to travel, and she travels as much as she can so maybe is not that easy to find her around.



Scott Fisher
University of Oregon
Contact: rfsf@uoregon.edu

Scott Fisher is a faculty member within the University of Oregon, Department of Physics, where he teaches astronomy courses and serves as the Director of Outreach for the department. Scott previously worked at the National Science Foundation in Washington, DC where he was responsible for selecting and funding astronomy programs across the United States. Before his time in Washington, Scott worked as a staff member of the Gemini Observatory as an instrument scientist and as a member of the Gemini Outreach team. Scott lived in Hilo-town for just over 10 years while he worked at Gemini. He obtained his Ph.D. from the University of Florida in 2001 after working his way through the Florida state school system, including a stint at Lake Sumter Community College. Scott's main area of research is searching for and studying planet-forming disks around young stars. He is also involved with the design, construction, and use of infrared camera systems that are used on some of the biggest telescopes in the world. He has spent approximately 350 nights observing from the summit of Mauna Kea since his first trip to Hawaii in 1996. In addition to his love of astronomy, Scott is an amateur photographer and a Geocacher.

Field Studies, providing technical support in the field for webcasts and robotic rover tests in extreme environments here on Earth. In 2007, he flew on the Aurigid-MAC mission to record fragments of comet Kiess entering Earth's upper atmosphere. Brian is a frequently-requested speaker at local schools and community organizations. As a member of NASA's Speakers Bureau, he is sent by NASA to give talks on a wide range of NASA missions and research topics.



Fidencio De Leon
University of Hawaii at Hilo
Contact: fdeleon@hawaii.edu

Fidencio De Leon is an undergraduate student working his way to a B.A. in Astronomy at the University of Hawaii at Hilo. After that he will work his way to a masters then a PhD. He has been interested in all subjects of science since a very young age, but mostly astronomy, physics and the physics of astronomy. His inspiration for all sciences (but mostly astronomy, physics and the physics of astronomy) came from the same place of, most likely, many people his age, Bill Nye the Science Guy. He hopes to one day help change the world for the better by making a contribution to the ever growing compendium of the universe and how it works. While not too busy trying to do that he likes to read and continue to think and wonder about the many things about the universe we have yet to discover.



Daniel Devost
Canada-France-Hawaii Telescope
Contact: devost@cfht.hawaii.edu

Daniel Devost is the Director of Science Operations at the Canada-France-Hawaii Telescope since 2008. He started at CFHT in 2007 as a Canadian Resident Astronomer and was the WIRCam Instrument Scientist. Before Moving to Hawaii, Daniel worked at Cornell University from 2000 to 2007 as an Instrument Scientist for the Infrared Spectrograph. The spectrograph is one of three instruments on board the Spitzer Space Telescope that was launched in August 2003. Daniel did his PhD at the Université Laval in Québec City, Canada in collaboration with the Space Telescope Science Institute in Baltimore where he spend three years. His science interests are the formation of massive stars and the amount of metals in the Universe.



Jeff Donahue
Gemini Observatory
Contact: jdonahue@gemini.edu

Jeff Donahue is Senior Laser Technician at Gemini Observatory. He supports the laser guide star, preparing the laser for each laser run. Jeff and his wife came from Oregon, where he spent 17 years at Hewlett Packard. Jeff also worked in Corvallis, Oregon as an electronic and laser maintenance technician supporting Inkjet Manufacturing. Jeff has a B.S. degree in Industrial Technology from Central Washington University and an A.S. degree in Electronic Engineering Technology from Linn Benton Community College. In addition to his laser activities, Jeff enjoys snorkeling and exploring the Big Island.



Alyssa Grace
Gemini Observatory, UHH
Contact: agrace@gemini.edu

Alyssa Grace is an administrative assistant for Journey through the Universe and a University of Hawaii at Hilo senior studying Psychology, Astronomy, and Biology. Alyssa works in a Neuroscience lab on the University campus. She has interned at Gemini Observatory in the Public Information and Outreach department for 4 months in which she developed a science communication program for college students and participated in various outreach events including a Family Day at the International Astronomical Union conference in Honolulu 2015. Alyssa is from Oahu but much prefers the Big Island. Her favorite activities include: volunteering at the Mauna Kea Visitor's center, hiking, yoga, and karaoke.



Olivier Guyon
Subaru Telescope
Contact: oliv.guyon@gmail.com

Olivier Guyon is an astronomer at the Subaru Telescope. He started looking at stars from the age of 10, and he is now both an avid amateur astronomer and a professional astronomer. Olivier graduated from University of Paris 6 in 2002 (Ph.D. research topic: wide field interferometry), and now works with other scientists to directly observe exoplanets. Olivier has been developing new techniques for imaging exoplanets (planets around other stars) from telescopes on Earth and also future telescopes in space. With these new techniques, astronomers will soon be able to observe planets like ours and start to find out if there is life elsewhere in the Universe. In 2007, Olivier received a Presidential Early Career for Scientists and Engineers award from President Bush at the White House. Olivier received in 2012 the MacArthur fellowship (nicknamed the "Genius grant") for his innovative work in astronomical optics. In his spare time, he builds telescopes which he then uses to observe from the clear skies of Mauna Kea and Mauna Loa.



John Hamilton
UHH Physics & Astronomy, PISCES
Contact: jch@hawaii.edu

John Hamilton is currently serving as Education/Public Outreach and Logistics Manager of the Pacific International Space Center for Exploration Systems (PISCES) based at the University of Hawai'i at Hilo. An astronomer by trade, he has been associated with space exploration since 1972 with the Skylab missions, spent most of his career supporting astronomical observations at multiple observatories in Hawai'i on Haleakala and Mauna Kea and also in Chile. He has most recently managed the first two International ISRU analog field tests in Hawai'i in 2008 and 2010 and is currently working on the 2012 deployment. John currently teaches undergraduates in Physics and Astronomy courses at UH Hilo. He also serves as co-founder and chief scientist for a local high-tech R&D company Akeakamai Enterprises LLC.



Ashley Garnett
University of Hawaii at Hilo
Contact: agarnett@hawaii.edu

Ashley Garnett was born in New Port, California and moved to the Big Island of Hawaii when she was 4. She grew up in Puna area on the Big Island. She now attends the University of Hawaii at Hilo. She is majoring in Geology and minoring in Astronomy. Her goal is to become a planetary geologist. From a young age she has always had a strong desire to understand the earth and the skies above. As she became older her interests grew even stronger pushing her to pursue her dreams.



Tom Geballe
Gemini Observatory
Contact: tgeballe@gemini.edu

Tom Geballe obtained a PhD in physics in 1974 under Prof. Charles Townes at U.C. Berkeley. Following postdoctoral fellowships at Berkeley and Leiden, and a Carnegie Fellowship at Hale Observatories in Pasadena, he became a staff astronomer at the United Kingdom Infrared Telescope in 1981. He was Astronomer-in-charge, Associate Director, and Head of Operations at UKIRT from 1987 until 1998, when he joined Gemini. Among his research interests are the Galactic center, the late stages of stellar evolution, H3+ as a probe of interstellar gas, the composition of interstellar dust, the surfaces, atmospheres, and aurorae of planets and moons, and brown dwarfs.



Jeff Goldstein
National Center for Earth and Space
Science Education
Contact: jeffgoldstein@ncesse.org

Jeff Goldstein is a nationally recognized science educator and planetary scientist who has dedicated his career to the public understanding of science and the joys of learning. As Center Director for the National Center for Earth and Space Science Education, Jeff oversees the creation and delivery of programs that engage entire communities, train 3,000 teachers annually, and emphasize family learning. He led the inter-organization team that permanently installed the Voyage model Solar System on the National Mall in Washington, D.C., in front of the Smithsonian. The Voyage National Program is permanently installing low-cost replicas in 100 communities world-wide. Jeff also oversees the Student Spacelight Experiments Program (SSEP) that provides real research opportunities for pre-college students on the Space Shuttle and International Space Station. Jeff was the Keynote Speakers for the NSTA National Conference in San Francisco, California, in March 2011. Jeff was at the National Air and Space Museum for 8 years, departing in 1996 as acting Chair of the Lab for Astrophysics. He was on the senior staff at Challenger Center from 1996-2005. In 2005 he created the National Center for Earth and Space Science Education. Visit Jeff's website at <http://blogontheuniverse.org>.



Saeko Hayashi
Subaru Telescope
Contact: saeko@naoi.org

Saeko S. Hayashi grew up in Tohoku, a northeastern rural part of Japan, where she spent part of her childhood in Fukushima. After graduating from a local high school, she boldly went on to attend the University of Tokyo as one of the few women undergraduates in STEM majors; she continued there and became the first woman to pursue Ph.D. in astronomy. She conducted her graduate research at the 45-m radio telescope in Nobeyama, Japan. After receiving her doctorate, she worked at the 15-m James Clerk Maxwell Telescope in Hawai'i and then joined the 7.5-m Japan National Large Telescope (JNLT) project, which began at the National Astronomical Observatory of Japan in 1990, and later became known as the Subaru Telescope with 8.2-m diameter. She has performed a variety of roles at Subaru from taking care of telescope optics, managing day crews to currently managing the Public Information and Outreach Office. She hopes to participate in the publication of research that will lead to major discoveries of Earth-like exoplanets, possibly with water and vegetation. She says, "Subaru Telescope, where people from all over the world come together and work with each other [as ancient Japanese word "Subaru" stands for], is a great place to work. The technical and other challenges at work and the laid back life in this beautiful island is an ideal combination for me".



Stephanie W. Henry
NASA Marshall Space Flight Center
Contact: stephanie.j.wilson@nasa.gov

Stephanie W. Henry serves as a Communications Strategist with Arctic Slope Regional Corporation, Inc. in Huntsville, AL. Stephanie's duties include external communications for the Lunar Quest and Discovery/New Frontiers Program Office at NASA's Marshall Space Flight Center. Stephanie assists in developing communication products and materials for the programs. She visits schools, museums, and community organizations to excite students and teachers about NASA's mission and encourages the students to study science, technology, engineering, and math. Stephanie is a graduate of the University of North Alabama where she received a Bachelor of Arts degree in Spanish/Political Science and a Master of Arts in Community Counseling. Stephanie also attended Belmont University in Nashville, TN where she earned her teacher certification for kindergarten through eighth grade. Before joining ASRC, Stephanie's experience includes work in a variety of educational arenas. Stephanie spent seven years working in Student Affairs at different universities and seven years teaching in the classroom, formal and informal instruction. Stephanie is a native of Tupelo, MS and has lived in the Huntsville, AL area for the past nine years. She is married and has a 15-year-old stepson. Stephanie enjoys traveling, shopping, tennis, and spending time with her family in her spare time.



Janice Harvey
Gemini Observatory
Contact: jharvey@gemini.edu

Janice Harvey is the Community Outreach and Education Programs Leader at Gemini Observatory and serves as the director of the nationally recognized Journey through the Universe Program on the Big Island. Janice is also the National Team Site Leader for the Family Astro/Project Astro program in Hawaii and serves as the StarLab Portable Planetarium instructor and trainer. In 2010 she was awarded the *Outstanding Individual in Business* award by the Rotary Club of Hilo. She is a member of the Astronomical Society of the Pacific, the International Planetarium Society, and the National Science Teachers Association. Janice has a BS in mathematics and went back for her associate degree in astronomy in 2000 at UHH. She has lived on the Big Island for 40 years and has worked as the Mayor's Executive Assistant, owned and operated Sylvan Learning Centers and three travel agencies in Hawaii. Janice's passion is bringing science and astronomy into the local classrooms.



Günther Hasinger
UH Institute for Astronomy
Contact: Hasinger@ifa.hawaii.edu

Günther Hasinger is a world leader in the field of X-ray astronomy and in the study of black holes, having received numerous awards for his achievements. Before becoming Director of the IfA in 2011, he was Director of the Max-Planck-Institutes for extraterrestrial Physics and for Plasma Physics, where he also was responsible for space technology and X-ray detector development. Prof. Hasinger gained his doctorate at the University of Munich and holds an honorary professorship at the Technical University Munich. He began his research career in astrophysics, receiving numerous awards for his contributions in this area, including the Leibniz prize in 2005, for his work on cosmic background x-radiation and black holes, and the Cospar award in 2010 for outstanding contributions to space science. He has also been active in explaining cosmology to a wider audience, winning a Science Book of the Year Award in 2008 for his book "Fate of the Universe". His new book "Astronomy's Limitless Journey" has been published by UH Press in 2015. He used to be a rock musician.



Yutaka Hayano
Thirty Meter Telescope - Japan
Contact: hayano@naoi.org

Yutaka Hayano received Ph. D from the Tokyo University in 1995. He worked for adaptive optics system for the ground-to-satellite laser communication at Communication Research Laboratory (1995-2001), the laser guide star system for adaptive optics (1997-2012), adaptive optics system for Subaru Telescope (2001-2015). He lived in Big Island from 2004 until the summer of 2015. He moved to TMT project office, NAOJ in Japan in August 2015 as a co-investigator of the first light instrument of TMT, IRIS. NAOJ is responsible for building imager subsystem of IRIS.



Russell Kackley
Subaru Telescope
Contact: rkackley@naoi.org

Russell Kackley holds a Bachelor of Science in Mechanical Engineering from Wayne State University and a Master of Science in Mechanical Engineering from Stanford University. He worked for 16 years on spacecraft design and analysis at Lockheed-Martin before moving to Hawai'i. Here in Hilo, he worked for 11 years at the Joint Astronomy Centre and was responsible for the Telescope Control System software. Since April 2011, he has been working at the Subaru Telescope in the Observation Control Software group. He also mentors the Waiakea Intermediate and Honoka'a High School robotics teams.



Carolyn Kaichi
UH Institute for Astronomy
Contact: kaichic@ifa.hawaii.edu

Carolyn Kaichi is the Education/ Outreach Specialist for Ifa-Hilo. She has always been fascinated by astronomy, and with a background in news media, it was a perfect fit for her to pursue a career in communicating her love of astronomy and space science. Carolyn (Ms. Kaichi?) was born and educated in Hawai'i and enjoys working with students and the public. "It is incredibly exciting to see peoples' eyes light up with wonder when you share the excitement of the Universe with them", she says. Prior positions include: Imaginarium Manager for the Center for Aerospace Studies at Windward Community College, Hawaii State Science Fair Director and Planetarium Manager for Bishop Museum. Carolyn enjoys astronomical observing, travel and has practiced yoga for many years.



Yuko Kakazu
Subaru Telescope
Contact: kakazu@naoi.org

Yuko Kakazu joined the Subaru Telescope as an outreach specialist in 2013. A native Okinawan, she began her journey into astronomy when she attended the NASA U.S. Space Camp program at age 13. Yuko graduated from Tohoku University in Japan and then obtained her Ph.D. at the Institute for Astronomy, University of Hawai'i at Manoa. Since then she has worked as a researcher in Paris, France (Institut d'Astrophysique de Paris), California (California Institute of Technology), and Chicago (University of Chicago). Her research focuses on metal poor galaxies and distant galaxies with the aim of improving our understanding of galaxy formation and chemical enrichment history of the Universe. At Subaru, Yuko arranges and conducts public outreach events and lectures for the local and the international communities, including Japanese audiences. She is hoping to help fill the gap between scientists and the public and wants to encourage young people, especially women and minorities, to engage in science and technology. When Yuko is not talking about astronomy or playing with her baby galaxies, she enjoys dancing Argentine tango, cooking (as well as eating), listening to piano jazz and classical music, and taking yoga or Zumba class at the gym. She is a certified Zumba fitness instructor.



Michael Hoenig
Gemini Observatory
Contact: mhoenig@gemini.edu

Michael Hoenig is a Science Operations Specialist at Gemini Observatory. He did his undergraduate degree in Astrophysics at the University of Sussex (England) in the last millennium, and then went on to do a Ph.D. at the University of Cambridge, which he completed in 2004. His thesis centered on the construction of a wide field infrared camera called CIRS, which meant he ended up going on a number of observing trips to Mauna Kea and the Canary Islands. Once all the data from the instrument was properly reduced and calibrated, it was used to search for distant clusters of galaxies - and he is happy to report he actually found some, too. After his Ph.D. he worked in translation and publishing for a few years. But the call of the cosmos was impossible to ignore! Which is why in 2008 he packed his bags and moved to Hilo, and the rest, as they say, is history... When he's not up at the telescope observing the night sky, or reviewing the images back down in Hilo, he likes to paddle canoes, dance Argentine tango or read a good book.



Matthew Hosek
UH Institute for Astronomy
Contact: mwhosek@gmail.com

Matt Hosek is a second year graduate student at the University of Hawaii Institute for Astronomy, having received a B.A. in Astrophysics from Williams College in 2012. He is interested in how stars interact with and affect their galactic environment, and is currently studying star formation near the supermassive black hole at the center of our galaxy. Interested in astronomy from a young age, he is excited for the opportunity to share his enthusiasm through education and outreach. Outside of astronomy, he is a huge football fan (GO GIANTS!) and enjoys hiking and playing ultimate frisbee.



Stewart Hunter
Mauna Kea Support Services
Contact: shunter@ifa.hawaii.edu

Stewart Hunter has been the General Manager at Mauna Kea Observatories Services (MKSS) since 2010. MKSS operates and maintains the mid-level astronomy facilities at Hale Pohaku on Mauna Kea. This includes the astronomy dormitories, the dining facility and the Visitor Information Station as well as maintaining the summit roads. Prior to working at MKSS, Stewart spent 24 years in the Navy, serving on submarines as an electronics technician, then after receiving a commission, a logistics officer until retiring in 2004 as a Lieutenant Commander. He received a BS in Earth Science from Oregon State University in 1991 and a MS in Systems Management from the Naval Postgraduate School in 1999. Stewart and his wife Lory have been Hilo residents since 2000, where they also own and operate a local Bed and Breakfast.



Masa Imanishi
Subaru Telescope
Contact: mimanishi@naoi.org

Masatoshi Imanishi works at Subaru Telescope. He studies merging galaxies and supermassive blackholes in the universe.



Julien Lozi
Subaru Telescope
Contact: lozi@naoj.org

Julien Lozi is senior optical scientist at Subaru Telescope, National Astronomical Observatory of Japan. Born in France in 1985, he was introduced to astronomy at the age of 10 and has been avidly pursuing this subject ever since. A 6-month internship at Subaru Telescope in 2008 first introduced him to Hawai'i, before he went back to France to study for his PhD in instrumentation for Astronomy. After earning his doctorate from Université Paris-Sud XI in 2012, Lozi worked in Silicon Valley for two years at the NASA Ames Research Center, to work on space telescopes that can look at extrasolar environments. In 2014, he returned to Hilo to accept his "dream job" at Subaru Telescope, where he is currently working on a first generation high contrast imaging instrument dedicated to the direct observation and characterization of exoplanets.



Nadine Manset
Canada-France-Hawaii Telescope
Contact: manset@cfht.hawaii.edu

Nadine Manset has been a resident astronomer at CFHT since 1999, right after finishing her PhD thesis at Université de Montreal. Over the years, she has helped astronomers observe in classical mode at CFHT, with spectrographs and imagers. Now in charge of the Queued Service Observing mode, she prepares observations for CFHT's spectropolarimeter and oversees the nightly observations taken with the various instruments. In addition to chairing the Maunakea Astronomy Outreach Committee, Nadine participates to public outreach events a few times every year.



Rachel Mason
Gemini Observatory
Contact: rmason@gemini.edu

Rachel Mason is an Associate Astronomer at the Gemini Observatory, where she specialises in infrared astronomy, nearby active galactic nuclei, and generally getting things done. Originally from northern England, she came to Hawai'i via a PhD in Edinburgh, Scotland, and a postdoctoral position split between Arizona and Chile. Outside work, Rachel is very interested in sustainable agriculture and the food system, and spends a lot of time hanging out with trees, plants, goats, and chickens.



Callie Matulonis
James Clerk Maxwell Telescope
Contact: c.matulonis@eaobservatory.org

Callie Matulonis is currently a Telescope System Specialist at the James Clerk Maxwell Telescope. Callie graduated from the University of Hawai'i at Manoa in the Spring of 2012 with a Master's degree in Educational Technology. Callie has worked for several Mauna Kea observatories over the past ten years fulfilling a variety of positions including public outreach, laser operations, and telescope operations.



Rob Kelso
Pacific International Space Center for
Exploration Systems (PISCES)
Contact: rkelso54@gmail.com

Rob Kelso has served as the Executive Director at the Pacific International Space Center for Exploration Systems since November of 2012. Kelso is a career civil servant, serving 37 years at NASA's Johnson Space Center (JSC), formerly holding a position as the NASA Shuttle Flight Director at NASA's famed Mission Control Center. Kelso's career in flight operations spans 21 years, beginning in April of 1981 as a flight controller on STS-1. In February of 1988, Kelso was selected to the Flight Director "Class of 1988" following the Challenger disaster, which took the life of Hawai'i's Ellison Onizuka. He directed 25 Space Shuttle missions during the 1980s and 1990s. During his time in Flight Control, Kelso was instrumental in launching Department of Defense (DoD) spacecraft aboard the Space Shuttle, beginning with overseeing the first DoD launch from Mission Control while Ellison Onizuka served as the Astronaut in the Shuttle cockpit in January 1985 for STS-51-C. He also served as NASA's Mission Director, responsible for the launch and delivery of the Chandra X-Ray telescope, the last of the great NASA observatories sent into space by NASA. After leaving the Flight Director Office at NASA JSC, Kelso served on JSC's senior staff as Deputy Director for Safety and Mission Assurance, responsible for directing safety and quality activities supporting manned space flight. One of Kelso's last roles at NASA was leading efforts to preserve and protect the Apollo lunar landing sites on the Moon. Kelso has been the recipient of the NASA Outstanding Leadership Medal, and NASA Exceptional Service Medal. He holds a Bachelor's Degree in physics, and a Master's in Business Administration.



Mary Beth Laychak
Canada-France-Hawaii Telescope
Contact: mbeth@cfht.hawaii.edu

Mary Beth Laychak is the outreach program manager at the Canada-France-Hawaii Telescope, her second time working at CFHT. Previously, Mary Beth was one of CFHT's service observers and outreach coordinator before moving to Oahu. On Oahu, she worked as the manager at the Imaginarium planetarium and astronomy lecturer at Windward Community College. Mary Beth has a BA in astronomy and astrophysics from Penn State University as well as a MA in Education from San Diego State.



Chien-Hsiu Lee
Subaru Telescope
Contact: leech@naoj.org

Chien-Hsiu Lee is a Support Astronomer at Subaru Telescope. He obtained a BS in Physics from National Taiwan University, a MSc in Astronomy from National Central University, and a PhD in Astronomy from Ludwig Maximilians University of Munich in 2011. Before joining Subaru Telescope, he was a postdoc research fellow at National Central University in Taiwan (2011-2013) and at University Observatory of Munich in Germany (2013-2015). His research focuses on variable stars and transients in the Milky Way and in our neighboring galaxy M31.



Brian Mitchell
NASA
Contact: brian.k.mitchell-1@nasa.gov

Brian Mitchell is the Education and Public Outreach manager for NASA's Discovery/New Frontiers/Lunar Quest Program Office. He has more than 25 years at the Marshall Space Flight Center located in Huntsville, Alabama and has worked on various Space Shuttle payload missions including ASTRO, ATLAS, and Spacelab, as well as several experiments for the International Space Station. He has been the Program Office Education and Outreach lead during the LRO, LCROSS, LADEE, JUNO, GRAIL, and IML missions to our Moon, Jupiter and Mars. Future missions in his Office include the asteroid sample return mission OSIRIS-REx, INSIGHT seismic mission to Mars, and the New Horizon spacecraft nearing Pluto now. Brian is tasked with communicating Planetary Missions Program Office (Discovery, New Frontiers, and Solar System Exploration programs) science goals and objectives to the public in order to promote STEM participation and inspire the general public by using new and existing opportunities. He spends much of his time speaking in classrooms and public venues, as well as designing innovative interactive exhibits that travel the country. When not talking about space, Brian keeps his 1965 Ford tractor alive, competes in shooting events, and occasionally gets to swing a golf club with his two teenagers.



Junichi Noumaru
Subaru Telescope
Contact: noumaru@naoj.org

Junichi Noumaru Current position: Associate Professor, Subaru Telescope, National Astronomical Observatory of Japan. Born in Kitakyushu, Fukuoka, Japan. Graduated from Kyoto University, Japan. Ph.D in Astronomy. Studied optical property of young stellar object such as emission nebulae and Herbig-Haro objects. Also joined to instrumentation such as prototyping fiber-fed multi-object spectrograph and control system of the telescope. After I moved from Kyoto University to National Astronomical Observatory of Japan in Tokyo in 1992, I joined the design of control system and instrument interface of Subaru Telescope. Moved to Hilo in 1996 for Subaru Telescope Project and oversaw progress of construction of Subaru Telescope. At Subaru Telescope at Hilo, I was in charge of operator's group and Instrument Division. Currently I'm the division chief of Computer and Data Management Division and the Safety Officer of Subaru Telescope.



Prashant Pathak
Subaru Telescope
Contact: prashant@naoj.org

Prashant Pathak is a second year graduate student at Subaru Telescope, enrolled at Sokendai university, Japan. He did his undergraduate studies at the Indian Institute of Science Education and Research Thiruvananthapuram, India, with a major in Physics and minor in Biology. At Subaru telescope, he is part of the SCEAO group, who are working on developing an instrument, which will be able to directly image exoplanets and do its spectroscopic studies. His current field of research is to measure the on-sky atmospheric dispersion and its correction using chromaticity of Speckles to achieve the high contrast images for direct detection of exoplanets.



Tony Matulonis
NASA Infrared Telescope Facility
Contact: matuloni@ifa.hawaii.edu

Tony Matulonis works at NASA Infrared Telescope Facility (IRTF). He earned his Bachelor of Science in Astronomy from the University of Hawai'i at Hilo in 2002. After working as an Interpretive Guide at the Ellison Onizuka Center for International Astronomy Visitor Information Station, Telescope Operator at the UH 2.2-meter telescope, Science Operations Specialist at Gemini Observatory, he joined IRTF in 2013.



Peter Michaud
Gemini Observatory
Contact: pmichaud@gemini.edu

Peter D. Michaud, Gemini's Public Information and Outreach Manager, has pursued a career that has provided a broad set of experiences in education, media relations and photography. These have ranged from the initiation and management of many informal science education programs to the authoring of a monthly newspaper column on astronomy. Prior to moving to Honolulu in 1989 to manage the Bishop Museum Planetarium, Peter obtained his Bachelor's Degree in Atmospheric Physics and certification in Physical Science Education in 1985. This led to his selection for the highly competitive annual planetarium education internship at the Strasenburg Planetarium in Rochester N.Y. in 1985 - 86. During almost a decade at the Bishop Museum Planetarium, Peter worked closely with local educators as well as the Mauna Kea astronomical community and initiated many new projects that included a NASA-funded project to produce a nationally distributed planetarium program about Mauna Kea. In June 1998, Peter accepted his current position at the Gemini Observatory in Hilo. Since arriving here, Peter has been involved in a variety of projects that have included the management of multiple outreach, education and media relations initiatives. An example of the innovative products produced by his office is the Gemini Observatory Virtual Tour CD-ROM/Kiosk which is currently being translated into multiple languages and has been installed in a variety of public facilities around the world.



Joseph Minafra
NASA Ames Research Center
Contact: joseph.minafra@nasa.gov

At the NASA Ames Research Center, **Joseph Minafra** serves as Lead of Technical Systems and Collaborative Technology Specialist for the NASA Solar System Exploration Research Virtual Institute (SSERVI). Joe has an extremely diverse background that ranges from Meteoritic studies, biology, project management, software development including web design, collaborative technology development to Scientific Illustration and graphic design, even a few years as a professional Chef. With his varied background, Joe has been responsible for a broad set of technical tasks for the NASA Ames Center Director as well as the Space and BioSciences Divisions, Astro and Synthetic Biology workshops just to name a few. Currently, his work is to oversee technology innovation and Robotics education initiatives in order to enable collaboration and communication between competitively selected science and research teams across not only the United States but internationally as well. Joe has a long history of integrating government work with commercial enterprises and bringing that message to the public through the education and public outreach sectors. He is excited to share his NASA experiences with the Journey through the Universe communities! Ad Astra!



Andreea Petric
Gemini Observatory
Contact: apetric@gemini.edu

Andreea Petric is a Science Fellow at the Gemini North Observatory since November 2013. She has received her PhD from Columbia University with a thesis on X-ray scattering halos and was a postdoctoral fellow at Caltech working on IR and millimeter observations of interacting galaxies and galaxies hosting Active Galactic Nuclei (AGN). Her current research focuses on near-IR observations with Gemini of the impact of AGN on the interstellar medium of their host galaxies.



Tae-Soo Pyo
Subaru Telescope
Contact: pyo@naoi.org

Tae-Soo Pyo is an Assistant Professor at the Subaru Telescope. His research focuses on star and planet formation, especially outflows and jets from young stellar objects. He has been working at Subaru Telescope since 2000 December. He was a Support Astronomer engaging in management and night support of InfraRed Camera and Spectrograph (IRCS) and Adaptive optics system (AO188) and other instruments. He got Bachelor and Master degrees in Astronomy from Seoul National University at Seoul in South Korea in 1992 and a PhD in Astronomy from the University of Tokyo at Tokyo in Japan in 2003. Tae-Soo loves Ukulele and various music including heavy metal and reading books.



Bo Reipurth
UH Institute for Astronomy
Contact: reipurth@ifh.hawaii.edu

Bo Reipurth graduated from the University of Copenhagen in Denmark. After spending some years as a postdoc there, he took up a position as staff astronomer with the European Southern Observatory in Chile for 11 years. Subsequently, he worked at CASA in Colorado as a Research Professor, and later joined the Institute for Astronomy at the University of Hawaii in Manoa in order to pursue studies of star and planet formation. "One of my first astronomical experiences as a small kid was to see the craters of the Moon and the rings of Saturn through the telescope at the public observatory on top of the Round Tower in Copenhagen. After that I was never in doubt that I had to become an astronomer. Conditions in Copenhagen were already in those days not ideal for looking at the night sky, but instead I spent innumerable hours with my small telescope drawing sunspots as they crossed the Sun. I took out a subscription to Sky and Telescope, which I then painstakingly read through with the help of a dictionary. One day I read an article about small mysterious blobs called Herbig-Haro objects which might be signposts of stars in the making. I was completely captivated by the possibility that we might actually be able to see stars in the process of being born, and I have spent most of my professional career trying to learn about how stars are formed."



Marc Roberts is the Physics Lab Coordinator and Lecturer at the University of Hawaii, Hilo(UHH). He has a B.Sc. from Trent University, Canada and a M.Ed. from The College of New Jersey. Marc has taught in the USA, Canada, Japan, Korea, and Vietnam. He has taught at many levels from Kindergarten through to College. He loves to tinker with computers and electronics and is currently the faculty lead for the UHH NASA RMC Robotics team. He is an avid cyclist and has traveled extensively by bicycle in the above mentioned countries, as well as a one month tour of France. He can speak multiple languages as he



Emily Peavy
Imiloa Astronomy Center
Contact: epeavy@imiloahawaii.org

Emily Peavy is a recent graduate of UH Hilo's Astronomy program and a full time Planetarium Support Facilitator and Technician at 'Imiloa Astronomy center; where she worked as a student employee since January 2012. Emily also enjoys volunteering at the Maunakea Visitor Information center whenever she gets some free time. Emily plans on going into the outreach and education side of astronomy but is still intrigued and excited by much of the research that is occurring in the field.



Yvonne Pendleton
Solar System Exploration Research
Virtual Institute NASA Ames Research
Center
Contact:
yvonne.pendleton@nasa.gov

Dr. Yvonne Pendleton is the Director of the Solar System Exploration Research Virtual Institute. Pendleton joined NASA Ames in July 1979 having earned her Bachelor of Aerospace Engineering degree from the Georgia Institute of Technology. Under NASA sponsored programs, she obtained a Master's Degree in Aeronautics and Astronautics from Stanford University (1981) and a Ph.D. in Astrophysics from the University of California at Santa Cruz (1987). As a research astrophysicist in the Space Science and Astrobiology Division from 1979-2005, Yvonne published 80 scientific papers and contributed significantly to our understanding of the origin and evolution of organic material in the universe. The goal of her ongoing research program is to understand the composition of the organic material found in the interstellar medium and to investigate the incorporation of the organic material from space into the early Earth environment. She is an elected fellow of the California Academy of Science and Asteroid 7165 Pendleton was named in honor of her research contributions. Appointed Chief of the Space Science and Astrobiology Division at NASA Ames Research Center in 2005, she led a scientific and technical staff of 160 people. When asked to serve as the senior advisor for research and analysis programs for the Science Mission Directorate at NASA Headquarters, she moved to Washington, DC from 2007-8. There she provided independent assessments and guidance to the Associate Administrator of the Science Mission Directorate concerning NASA's science research programs and increased scientific productivity across the nation as the time required to evaluate and award research grants was significantly reduced. During that time she was also responsible for the Education and Public Outreach of NASA's Science Mission Directorate and led a team that managed the nearly 50 million dollar investment made in EPO activities, including those from NASA's science missions. Returning to NASA Ames in July of 2008, Yvonne became the deputy associate director where she provided guidance and direction to several collaborative scientific and technical efforts and served as an academic Dean of Students for the several hundred students on the Ames campus each summer. Yvonne has been very active in education and public outreach throughout her career. She served as the Director for Research for the NASA Ames Astrobiology Academy in 2004, developed the Voyages Through Time education curricula with the SETI Institute, served as an astronomer to local classrooms for over a decade with the Astronomical Society of the Pacific, and taught astronomy at the college level as an adjunct lecturer at Santa Clara University. To read more about Yvonne, please read "A Lifetime Spent Studying the Stars, Searching for Answers", a biography of Dr. Yvonne Pendleton on the official NASA-Ames Research Center website.



Dennis Schatz
Pacific Science Center
Contact: Dennis_Schatz@pacsci.org

Dennis Schatz is Senior Advisor at Pacific Science Center in Seattle, Washington. A research solar astronomer prior to his career in science education, he worked at the Lawrence Hall of Science at the University of California, Berkeley, prior to moving to Seattle in 1977. At Pacific Science Center he has held a broad range of positions from Director of the Planetarium in his early years to VP for Exhibits and VP for Education to Senior VP in more recent years. In the last 4 ½ years, he was a Visiting Scholar at the University of Queensland, Brisbane, Australia, followed by four years as a Program Director at the National Science Foundation (NSF). He has provided leadership to several of Pacific Science Center's major initiatives, including Washington State LASER and Portal to the Public. He is active in the Association of Science-Technology Centers (ASTC), being a past member of its Program Committee, Professional Development Committee and past chair of its Education Committee, and its Leading Edge Awards Selection Committee. He is also active in the National Science Teachers Association, having been Program or General Chair for three of NSTA's Conventions. He has dedicated many years to identifying effective ways to teach astronomy concepts, especially through his involvement with the Astronomical Society of the Pacific (ASP), the largest international society dedicated to astronomy education in and out of school. He is a past board member and a past president of the ASP. He has received numerous honors, including the 1996 Distinguished Informal Science Educator Award from the National Science Teachers Association (NSTA). He received NSTA's 2005 lifetime achievement award (Distinguished Service to Science Education). In 2006 ASTC made him an ASTC Fellow for his lifetime achievement in service to the field and furthering the public's understanding of science. He is only one of 24 ASTC Fellows awarded in the history of ASTC and the first non-CEO or public official to receive the award. In March, 2009 he received the Faraday Science Communicator Award, presented annually by the National Science Teachers Association (NSTA). This award recognizes and honors an individual or organization that has inspired the public's interest in and appreciation of science. He joins an elite group of highly prestigious honorees, including the PBS series NOVA and NPR Science Correspondent Ira Flatow. Most recently, he received the 2014 Klumpke-Roberts Award from the Astronomical Society of the Pacific for outstanding contributions to the public understanding and appreciation of astronomy. Past awardees include stellar astronomy communicators, such as Carl Sagan, Isaac Asimov, Timothy Ferris and Dava Sobel. He is the author of 23 science books for children, including Uncover A T.rex, the Fossil Detective series of four books and the popular Totally series of six books (Totally Dinosaurs in 2000 to Totally Sea Creatures in 2003). His most recent book is The Amazing Squishy T.rex. His books have sold almost 2 million copies worldwide and have been translated into 23 languages. His Uncover A T.rex book was a 2003 Parents Choice Award Winner, and his Fossil Detective Woolly Mammoth received a 2006 iParenting Media award. He is also co-author/editor of several curriculum resources for teachers, including Astro-Adventures, Universe At Your Fingertips and More Universe At Your Fingertips.

Marc Roberts
University of Hawaii at Hilo
Contact: mfr@hawaii.edu

put effort in learning the language of each of the foreign countries he has lived in.



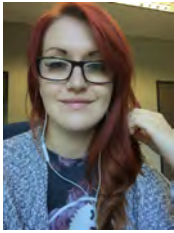
Rodrigo Romo
Pacific International Space Center for
Exploration Systems (PISCES)
Contact: rfvromo@gmail.com

Rodrigo Romo is the Project Manager for the Pacific International Space Center for Exploration Systems (PISCES), and is primarily in charge of the Robotic Village – an initiative to test in-situ resource utilization (ISRU) and robotics at planetary analogue testing sites. He is currently leading and supervising the development of PISCES' Alpha Argo planetary exploration rover, as well research and integration of future components for the Robotic Village. Romo began his career near Tucson, Arizona at Biosphere II - the largest fully enclosed facility dedicated to researching climate change, ecosystem interactions, and space colonization during its time. From 1992 through 1997, he held several key positions overseeing instrumentation and air monitoring systems, as well as working in research and engineering departments. Romo held his last position at Biosphere as the Plant Manager for a 6 megawatt cogeneration power plant on site. From 1997 through 2014, Romo served as the Vice President of Engineering for the Zeta Corporation, researching and developing new applications for the company's technologies. He is originally from Guadalajara, Mexico and earned his undergraduate degree in Chemical Engineering from ITESO University in 1992. He later obtained his Master's degree in Business Administration from the University of Arizona.



Kathy Roth-Guyon
Gemini Observatory
Contact: krath@gemini.edu

Kathy Roth-Guyon is an Associate Scientist based at Gemini North. She is the instrument scientist for the Gemini Multi-Object Spectrograph (GMOS-N) and has been with Gemini since July 2000. She obtained her B.Sc. in Physics and Computer Science at Duke University in 1985 and her Ph.D. in Astrophysics from Northwestern University in 1992. She held a postdoctoral position at the Space Telescope Science Institute (STScI) in Baltimore from 1992 until 1995, followed by a Hubble Fellowship at the University of Hawai'i Institute for Astronomy from 1995 until 1998. In 1998 she joined the staff of the Far Ultraviolet Spectroscopic Explorer (FUSE) at Johns Hopkins University in Baltimore. Her research interests include the chemical enrichment of the interstellar medium in our galaxy and in the high-redshift universe via quasar absorption line spectroscopy, the study of distant young galaxies, and the use of gamma ray bursts to probe chemical enrichment of the early universe by the first stars.



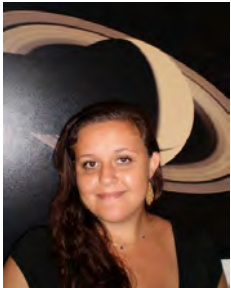
Jessica Schonhut
UH Institute for Astronomy
Contact: Jessicaschonhut@gmail.com

Jessica Schonhut is currently working as an intern at the Institute for Astronomy. She will be working in Hilo for a year, before moving back to the UK to finish her Degree in Astrophysics. This year she is looking at asteroseismic data and working on various projects. In England, she studies at the University of Hertfordshire just north of London and works at the university observatory, Bayfordbury giving planetarium shows to curious members of the public as well as working with the telescopes. Her hobbies include music, which she studied before moving to astrophysics, and photography.



Jenny Shih
Gemini Observatory
Contact: jshih@gemini.edu

Jenny Shih is a Science Fellow at the Gemini Observatory. She earned her bachelor degree in Astrophysics from UCLA in 2004, and her Astronomy PhD from the Institute for Astronomy at UH Manoa. She spent most of her time in graduate school studying how supermassive black holes affect galaxy evolution. In particular she focused on the black holes that have very powerful radio jets. These jets are strong enough to blow a large amount of gas out of the galaxy, and thus affecting the star formation and black hole accretion activities. After graduate school, she wanted to stay in Hawaii, so she moved to the Big Island and continue to do her research while also helping with daily operations at the Gemini telescope. Other than Astronomy, she is also obsessed with cute and furry animals. If you catch her taking a break from working on the computer, she is probably watching live panda or otter cams.



Jasmin Silva
University of Hawaii at Hilo
Contact: jasminks@hawaii.edu

Jasmin Silva is a junior majoring in Physics and Astronomy at UH Hilo. She was a NASA Hawaii Space Grant Consortium fellow in the Spring 2015 and Fall 2015 semesters. Through her fellowship she studied the evolution of the gaseous regions surrounding galaxies with Dr. Kathy Cooksey. She is interested in science education and particle astrophysics, and hopes to pursue those interests in the future. In her free time, Jasmin enjoys reading, hiking and trying to learn German.



Doug Simons

Doug Simons received his B.S. in astronomy at the California Institute of Technology in 1985, and a Ph.D. in astronomy at the University of Hawai'i in 1990, before working as a staff astronomer at the Canada-France- Hawai'i Telescope (CFHT) for 4 years. Doug joined Gemini in May of 1994 as the Systems Scientist, then managed Gemini's instrument development program for 5 years before becoming Gemini's Director from 2006-2011. Doug returned to CFHT in 2012 where he now serves as Executive Director. Principal areas of interest include infrared instrumentation and studies of the Galactic center, low mass stars, and star formation regions.



Sharon Schleigh
East Carolina University
Contact: schleighs@yahoo.com

Sharon Price Schleigh, originally from Hawaii, has been an educator for over 20 years, teaching all ages, from preschool to university. She received the Distinguished Award for Innovative College Science Teaching from the Hoosier Science Teacher Association in 2013. She earned her BS from the University of Hawaii, Hilo, has earned two masters degrees, and has earned a doctoral degree from Arizona State University. Her research interests include understanding how people think about and engage in science. This has led to research projects that have examined argumentation in a science classroom; authentic research in astronomy and problem-based curriculum designs; how students, teachers and scientists think about the nature of science; and how curriculum impacts content knowledge and attitudes about science. She has been involved in projects such as the NASA Deep Impact Mission (Institute for Astronomy, Hawaii); Toward Other Planetary Systems (IFA/NSF); Ali'i Astrobiology Summer Workshops; and Teacher Leaders in Research-Based Science Education (NOAO, Kitt Peak). She is sought out across the country to lead teacher and k-12 science workshops and presentations, focusing on argumentation and on astronomy content (building telescopes and image analysis). She has been on the education board for the Las Cumbres Observatories of Global Telescopes network (LCOGT), the Faulkes Telescopes, and GoScience. She has served as the director of the Research Engaged Science Teacher Education Program to improve STEM (RESTEP to STEM), funded by NASA and the NC Space Grant to promote astronomy/science education with pre-service teachers. She has also served as a Regional Science & Engineering Fair Director, a Regional Science Olympiad Director, a trainer and presenter of the ECU Portable Planetarium program, an AAPT State Representative (HI), as the Mentor Coordinator for the Near East School Alliance Virtual Science Fair, and is the Chair of the Advisory Board for the NSTA Journal of College Science Teaching. Dr. Schleigh is the co-author of the Scientific Argumentation in the Biology Classroom, and the soon to be released Scientific Argumentation in the Earth & Space Science Classroom.



Dehrich Schmidt-Chya
University of Hawaii at Hilo
Contact: dasc@hawaii.edu

Dehrich Schmidt-Chya was born and raised in Alaska. He is currently working on obtaining a Bachelor of Science in Astronomy from University of Hawaii at Hilo. He is interested in Astronomy because there is so much we do not know about the Universe, and he has always wanted to help solve the countless mysteries that the Universe hides from us. Ultimately, his goal is to receive a Ph.D. in the field, and not only conduct research - but help to educate future generations by becoming a professor.



Robert Sparks
NOAO
Contact: rsparks@noao.edu

Rob Sparks earned his B.A. in Physics from Grinnell College and M.S. from Michigan State University. He taught high school physics, math and astronomy for 11 years at schools on St. Croix, Florida and Wisconsin. He spent the 2001-2002 academic year at Fermilab working on the Sloan Digital Sky Survey as part of the Fermilab Teacher Fellowship Program. He spent 13 years as a NASA Astrophysics Educator Ambassador for the Swift Satellite and spent the summer of 2003 at the National Radio Astronomy Observatory in Green Bank as part of the Research Experience for Teachers program. He joined the Education and Public Outreach Group at the National Optical Astronomy Observatory in 2005 where he has worked on a variety of educational programs and is currently the Tucson Project Astro Site Director. He is also part of the resident improv troupe at Unscrewed Theater where he also teaches improv classes and is a member of the creative team. Rob performs with Musical Mayhem Cabaret and is an avid distance runner.



Gordon Squires
Thirty Meter Telescope Project
Contact: squires@tmt.org

Gordon K. Squires is an astronomer at the California Institute of Technology, working with the Thirty Meter Telescopes as well as NASA's Spitzer Space Telescope, the Herschel Space Observatory, the Galaxy Evolution Explorer and other space telescopes with Caltech involvement. His research explores the old, cold and distant universe, understanding how galaxies formed billions of years ago, and the nature of the dark matter and dark energy that fills space.



Mark Subbarao
Adler Planetarium
Contact:
msubbarao@adlerplanetarium.org

Mark Subbarao is the director of the Space Visualization Laboratory at the Adler Planetarium in Chicago. He received his PhD from The Johns Hopkins University back in 1996 and soon afterward began working on a project that was creating the largest map of the universe ever made. At the time it was difficult to view a map that large, solving that problem led to his interest in scientific visualization. Today at the Adler he develops planetarium shows to communicate astronomy to the public and visualizations to help other researchers better understand their data.



Niki Thomas is an undergraduate student at the University of Hawaii at Hilo majoring in Astronomy and Biology. She has interned at the Pacific International Space Center for Exploration Systems and currently does research under the Hawaii Space Grant Consortium related to looking at Hawaii as an analog to early and present day Mars. She is also currently working on a NASA funded project called B.A.S.A.L.T. and is part of a UH Hilo team aiming to choose the first human landing site on Mars. In her spare time

Canada-France-Hawaii Telescope
Contact: simons@cfht.hawaii.edu



Christopher Simpson
Gemini Observatory
Contact: csimpson@gemini.edu

Chris Simpson became fascinated by astronomy at the age of nine after watching Carl Sagan's TV series "Cosmos" and that fascination has stayed with him ever since. After obtaining his doctorate in astrophysics from the University of Oxford in 1994, he pursued a research career that saw him head westwards across the USA, via Space Telescope Science Institute and the Jet Propulsion Laboratory, to become the first support astronomer at Subaru Telescope in 1998. In 2003 he returned to the UK to continue his research on galaxy evolution from large surveys, focusing on the role of supermassive black holes at the centers of galaxies and what we can learn from deep surveys at radio wavelengths. After growing disenchanted with the English weather, he returned to Hilo in 2016 as a Data Process Developer at Gemini.



Evan Sinukoff
UH Institute for Astronomy - Manoa
Contact: sinukoej@gmail.com

Evan Sinukoff is a graduate student at the University of Hawaii Institute for Astronomy. Born and raised in Toronto, Canada, he completed his undergraduate degree at McMaster University, majoring in Physics. As part of this degree, he spent time working as a research assistant at NASA's Goddard Space Flight Center in Maryland. There, he had the opportunity to meet astronauts, and was exposed to the amazing world of space exploration. He became particularly interested in the detection and characterization of extrasolar planets, especially those which might be host to alien life. Presently, as a graduate research assistant, he is using some of the world's most powerful telescopes to search for Earth-sized exoplanets and the black hole remnants of exploded stars. His research team recently measured the mass and density of a hot, Earth-sized exoplanet, Kepler-78b, finding its composition to be mostly rocky like Earth. Aside from astronomy, Evan loves to hike, surf and play a variety of different sports, and, as most Canadians, this includes ice hockey.



Breann Sitarski
UCLA
Contact: bsitarski@astro.ucla.edu

Breann Sitarski is a graduate student researcher in the Galactic Center Group at UCLA. She got her Bachelor's degree in Astrophysics from UCLA, and continued there for graduate school, where she is currently working on her Ph.D. in Astronomy. Breann studies dusty objects near the supermassive black hole at the center of our Galaxy to try to understand where they come from, what they are, and how they survive in such a hostile environment. She also studies the adaptive optics system on the Keck II telescope to try to correct for aberrations that the NIRC2 instrument itself is making on astronomical data. She was the lead coordinator for Astronomy Live!—the award-winning astronomy outreach group at UCLA—for four years. Breann also likes studying history, traveling, playing various sports, and reading!



Sherry Yeh
Subaru Observatory
Contact: yeh@naoj.org

Sherry Yeh joined Subaru Telescope in 2013 as a NAOJ-Subaru Research Fellow. She knew she wanted to become a scientist at a young age, and she made up her mind to become an astronomer after attending summer schools at the Ken-Ting Observatory and Academia Sinica Institute of Astronomy and Astrophysics in Taiwan. Sherry received her PhD at the University of Toronto in Canada; using near- and mid-infrared instruments on telescopes around the world, her research focuses on the interplay between massive star clusters and their interstellar medium in nearby galaxies. When not exploring the Universe, Sherry enjoys knitting, long-distance cycling, and wandering in the volcano park.

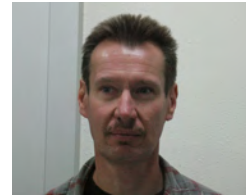
Niki Thomas
Pacific International Space Center for
Exploration Systems (PISCES), UHH
Contact: nkthomas@hawaii.edu

Niki likes to do challenging calculus problems, play with her pet chicken, watch movies, and eat delicious food.



Chad Trujillo
Gemini Observatory
Contact: ctrujillo@gemini.edu

Chad Trujillo is an Astronomer at Gemini Observatory in Hilo. He obtained a BS in Physics from MIT in 1995 and a PhD in Astronomy from the University of Hawaii in 2000. After work as a Postdoctoral Scholar at Caltech he joined Gemini in 2003. At Gemini, he has been involved in the science operation of the Adaptive Optics system (Altair) guiding with both natural stars and laser beacons. His research interests include the Kuiper Belt, the solar system, star and planet formation and extrasolar planets. His recent work includes co-discovery and surface measurements of several of the largest Kuiper Belt Objects including the so-called "10th Planet", and co-discovery of the first high inclination Neptune Trojan asteroid.



John Vierra
Gemini Observatory
Contact: jvierra@gemini.edu

John Vierra was born and raised in Hilo and graduated from Hilo High School. He joined the United States Airforce after graduation and spent the next 10 years in the US Airforce as a firefighter, earning a degree in Fire Science. He left the Airforce in 1992 to move back home and be close to his family. Upon returning to Hilo he was hired as a firefighter at Pohakuloa Federal Fire Department. He spent 22 years with the Federal Fire Department retiring as an Assistant Fire Chief. During his time at the Fire Department he also worked as a Flight Medic/Rescue Specialist with Priority 1 Air Rescue simultaneously teaching Emergency Medical Responder classes around the island. He has been a CPR instructor since 1989. Since 2008 he has worked with Gemini as a Safety Trainer. In November 2014 he starting working full-time as Gemini's Safety Manager and ensures the Safety of all Gemini employees at the telescope and base facilities in Hawaii and Chile.



Josh Williams
Subaru Observatory
Contact: jcwilliams@naoj.org

Josh Williams is an Operator for Subaru Observatory where he's been since March of 2011. He got his Bachelor's of Science degree in 2007 from the University of Hawaii – Hilo where he majored in Astronomy, and minored in Physics and Mathematics. Since graduating he has spent a significant amount of his time above an altitude of 9,000 ft. in various facets – as a volunteer and then Interpretive Guide at the Visitor Information Station on Mauna Kea (9,100 ft.), a Telescope Operator for the AMiBA Observatory on Mauna Loa (~11,100 ft.), and now as a Telescope Operator on the "proper" mountain, Mauna Kea (13,800 ft.). As a long time regular on Mauna Kea he has enjoyed eating copious amounts of ice cream at the mid-level facility.



Tom Winegar
Subaru Observatory
Contact: winegar@naoj.org

Tom Winegar works as the archive administrator for the pictures of the Subaru Telescope in Hilo, Hawaii. After graduating from UC Berkeley in 1982, Tom has worked as a database programmer and administrator for 30 years - the last 17 at the Subaru developing web-based query and archive software used by astronomers to retrieve observation data from an international-mirrored 100TB archive. In his spare time, he submerges himself in the ocean and mows.