



March 2–9, 2018

Hilo, Hawai'i



March 2-9, 2018



TO OUR JOURNEY FAMILY,

2018 marks our fourteenth year of Hawai'i Island's flagship education and outreach program, Journey Through the Universe. This year 80 astronomy educators visited over 8000 students in 300 classrooms in the Hilo-Waiākea, Pa'auilo, Honoka'a and Waimea schools during Journey week. In the Hilo-Waiākea complex, sixty-one K-1 classrooms were inspired with StarLab presentations. As in the past years, our Astronomy Educators were able to convey their passion and excitement for STEM education.

Keone Farias, Superintendent of the Hilo/Waiākea and Ka'ū-Kea'au-Pāhoa Complex areas has elaborated that "Journey Through the Universe: STEM Initiative is a stellar partnership between business organizations and the community. As a part of the educational system, our complex areas are overwhelmed with appreciation for the enthusiasm and energy this initiative has generated for our schools, students, teachers, administrators and families. This concentrated effort has made this grassroots effort a sustaining reality. We humbly thank the community for their continued support as we all work together toward a common goal – building a better future."

The Hawai'i Island and Japanese Chambers of Commerce hosted a celebratory evening event commending the astronomy educators for inspiring our keiki to reach for the stars. The two Chambers' thank-you celebration provides a unique opportunity for astronomers, educators, and the business community to discuss and share a common goal – enrich science education in our schools.

The Journey Team wants to express their sincere appreciation for all of those involved in the Journey program. Your continued support and acknowledgement has been a wonderful tribute to our students. A program of this magnitude could not happen without the dedication of our community partners and their ongoing support!

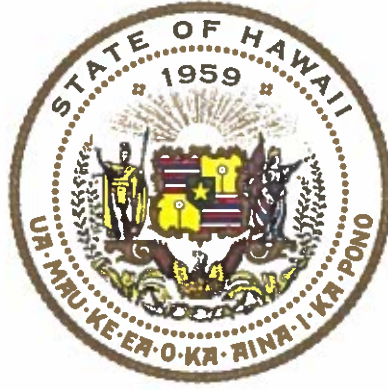
As we look forward to our fifteenth year of the Journey through the Universe program, we will continue to change our student's lives as we advance science literacy through astronomy and encourage all students to reach for the stars!

Please visit our Journey website, www.gemini.edu/journey, for additional information.

Much Aloha and our sincerest Mahalo,

Janice Harvey, Journey Through the Universe Team Leader





Proclamation

In Recognition of

Journey through the Universe 2018

WHEREAS, the Journey through the Universe program, developed by National Center for Earth and Space Science Education, inspires and prepares the next generation of scientists and engineers to compete in global markets in the age of high technology; and

WHEREAS, Hilo, Hawai'i is currently one of ten communities around the nation that are designated Journey through the Universe sites; and

WHEREAS, the 14th Annual Journey through the Universe program on Hawai'i Island strengthens the community by partnering with the Gemini Observatory on Maunakea, University of Hawai'i-Hilo, Hawai'i Department of Education Hilo-Waiākea and Kau-Keaau-Pahoā Complex Areas, Waimea and Honoka'a Schools, 'Imiloa Astronomy Center of Hawai'i, Japanese Chamber of Commerce & Industry of Hawai'i, Hawai'i Island Chamber of Commerce, as well as many other sponsors, organizations and businesses; and

WHEREAS, this fun-filled educational program has engaged tens of thousands of students in Hawai'i, giving them forefront access to the entire sky and allowing them to gain 21st century skills that helps to ensure literacy in science; and

WHEREAS, students, teachers, families and the public at-large are provided with an intensive week of programming which includes teacher workshops, classroom visits by astronomers and scientists, public lectures and family science nights; and

WHEREAS, Journey through the Universe embraces our diversity and promotes an inclusive environment by engaging members of the local community;

THEREFORE I, DAVID Y. IGE, Governor, and I, DOUGLAS S. CHIN, Lieutenant Governor of the State of Hawai'i, do hereby proclaim March 10-17, 2018 as

“JOURNEY THROUGH THE UNIVERSE WEEK”

in Hawai'i and ask the people of the Aloha State to join us in recognizing the national importance of science education and encourage our keiki to pursue the explorers within them.

DONE at the State Capitol, in Executive Chambers, Honolulu, State of Hawai'i, this first day of March 2018.



DAVID Y. IGE
Governor, State of Hawai'i



DOUGLAS S. CHIN
Lt. Governor, State of Hawai'i

COUNTY OF HAWAI'I

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 2018, the program celebrates its 14th 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, HARRY KIM, Mayor of the County of Hawai'i, do hereby proclaim March 2-9, 2018, 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 5th of March, 2018, in Hilo, Hawai'i.

Harry Kim

Harry Kim
MAYOR





Journey Through the Universe Hawai'i Island



Astronomy Educators in the Community 2018



- Alexis Acobido *Gemini Observatory*
- Virginia Aragon-Barnes *Thirty Meter Telescope*
- Christoph Baranec *UH Institute for Astronomy*
- Kerri Beisser *Johns Hopkins University APL*
- Tishanna Ben *National Solar Observatory*
- Alice Bowman *Johns Hopkins University APL*
- Veronica Bray *University of Arizona, LPL*
- Jerry Brower *Gemini Observatory*
- Marc Buie *Southwest Research Institute*
- André-Nicholas Chene *Gemini Observatory*
- Devin Chu *UCLA*
- Christophe Clergeon *Subaru Telescope*
- Kathy Cooksey *UH Hilo Physics & Astronomy*
- Sandra Dawson *Thirty Meter Telescope*
- Brian Day *SSSERVI/NASA*
- Tony Denault *NASA IRTF*
- Daniel Devost *Canada-France-Hawaii Telescope*
- Jeff Donahue *Gemini Observatory*
- Angelic Ebberts *Gemini Observatory*
- Jocelyn Ferrara *Gemini Observatory*
- Laura Ferrarese *Gemini Observatory*
- Scott Fisher *University of Oregon*
- Miriam Fuchs *Submillimeter Array*
- Tom Geballe *Gemini Observatory*
- Jeff Goldstein *NCESSE*
- Alyssa Grace *Mauna Kea VIS*
- Geoffrey Haines-Stiles *Passport to Knowledge/GHSP*
- John Hamilton *UH Hilo Physics & Astronomy*
- Janice Harvey *Gemini Observatory*
- Saeko Hayashi *TMT Japan*
- Stephanie Henry *NASA Marshall Space Flight Center*
- Michael Hoenig *Gemini Observatory*
- Stewart Hunter *Mauna Kea Support Services*
- Russell Kackley *Subaru Telescope*
- Carolyn Kaichi *UH Institute for Astronomy*
- Yuko Kakazu *Subaru Telescope*
- Ji Hoon Kim *Subaru Telescope*
- Scott Kleinman *Gemini Observatory*
- Shintaro Koshida *Subaru Telescope*
- Sylvia Kowalski *NASA Solar System Ambassador Program*
- Mary Beth Laychak *Canada-France-Hawaii Telescope*
- Chien Hsiu Lee *Subaru Telescope*
- Julien Lozi *Subaru Telescope*
- Nadine Manset *Canada-France-Hawaii Telescope*
- Callie Matulonis *James Clerk Maxwell Telescope*
- Tony Matulonis *NASA IRTF*
- Peter Michaud *Gemini Observatory*
- Joseph Minafra *SSSERVI/NASA*
- Brian Mitchell *NASA Marshall Space Flight Center*
- Randy Monroe *Football Middle School*
- Junichi Noumaru *Subaru Telescope*
- Emily Peavy *Imihoa Astronomy Center*
- Yvonne Pendleton *SSSERVI/NASA*
- Andrea Petric *Canada-France-Hawaii Telescope*
- Tae-Soo Pyo *Subaru Telescope*
- Bo Reipurth *UH Institute for Astronomy*
- Rodrigo Romo *PISCES*
- Jasmin Sibra *Gemini Observatory*
- Doug Simons *Canada-France-Hawaii Telescope*
- Breann Sitariski *UCLA/TMT*
- Jessica Stasik *UH Institute for Astronomy*
- Gordon Squires *Thirty Meter Telescope*
- Marianne Takamiya *UH Hilo Physics & Astronomy*
- Matt Taylor *Gemini Observatory*
- Tomonori Usuda *TMT Japan*
- John Vierra *Gemini Observatory*
- Tom Winegar *Subaru Telescope*
- Siyi Xu *Gemini Observatory*
- Sherry Yeh *Keck Observatory*
- Michitoshi Yoshida *Subaru Telescope*

Mahalo to our Journey through the Universe 2018 Community!



The Journey team thanks Subaru Telescope and TMT-J project Office/NAOJ for sponsoring this ad!

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



HOLLYN JOHNSON/Tribune-Herald

Third-graders use their breath as fuel to launch their handmade paper rockets Tuesday during a Journey Through the Universe event at Waiakeawaena Elementary School in Hilo.

JOURNEY THROUGH THE UNIVERSE

It is rocket science

'Astronomy educators' reaching out to students

By **KIRSTEN JOHNSON**
Hawaii Tribune-Herald

Dozens of "rockets" were poised for liftoff Tuesday morning as a final countdown began.

"... 5, 4, 3, 2, 1 — BLASTOFF!" nearly two dozen Waiakeawaena Elementary School third-graders yelled in unison as their paper

"We want to inspire the kids to not only know about the world we live in and our universe, but how we came to know that."

JANICE HARVEY, Gemini Observatory spokeswoman

rockets — engineered using Scotch tape and plastic straws — sailed impressively across

their classroom.

"You guys are rocket engineers already," said Sylvia Kowalski,

the astronomy educator leading the activity, with a grin.

Kowalski's hour-long classroom visit at Waiakeawaena was among dozens happening around the island this week as part of the 14th annual Journey Through the Universe Week. The astronomy

See **SCIENCE** Page A4



Former Gemini Observatory intern Sylvia Kowalski helps third-grader Emily Mejia, 8, make a paper rocket Tuesday during a Journey Through the Universe event at Waiakeawaena Elementary School in Hilo.

HOLLYN JOHNSON/
Tribune-Herald

SCIENCE From the front page

education and outreach program is organized by Gemini Observatory. It aims to promote science education in schools and inspire students to explore science, technology, engineering and math, or STEM, fields.

The program has about 300 classroom visits planned at schools throughout East and North Hawaii.

It's stopping for the first time this year at schools in the Ka'u-Keaaau-Pahoia Complex Area. In all, it hopes to reach 9,000 students this year. It eventually hopes to reach students islandwide, said Gemini spokeswoman Janice Harvey.

"The absolute goal is that every child will be scientifically literate," Harvey said. "Scientific literacy has been a goal of ours from the time we started 14 years ago. We want to inspire the kids to not only know about the world we live in and our universe, but how we came to know that."

Journey Through the Universe activities are led by "astronomy educators" such as Kowalski, a former Gemini Observatory intern. Topics include classroom visits, workshops, teacher trainings, career panels and public astronomy events. Topics covered during the activities span "the entire gamut," Harvey said.

"They are just inspiring them about what we know about our solar system," Harvey said. "And then we talk about career opportunities — that's really important. We want to make sure that the kids are very aware of the careers (in the field)."

On Tuesday, Kowalski gave students a thorough introduction to rockets. She taught the third-graders how to perform a wiggly "rocket dance" in which they learned various parts of a rocket.

Kowalski also shared some fun facts with the students. She told them,

for example, that the fastest rockets can travel 36,000 miles per hour.

"That's like if you're here in Hilo and you want to visit a friend in Kona, you could get there in eight seconds," Kowalski said.

Asher Janeway, 9, said his favorite part of the lesson was learning more about rockets. He said he already knew some of the basics — that "rockets need fuel and that they go into space." But he said he enjoyed gleaning more details from the astronomy lesson.

Space is "so cool because it's swirly and there are a lot of stars and stuff," Asher said.

Alaeyna Vallente, 9, said her favorite part was the rocket dance. She said math is her favorite subject in school because "it's really fun."

Space "is really cool because it has no gravity," Alaeyna said.

Email Kirsten Johnson at kjohnson@hawaiiitribune-herald.com.

Gemini Observatory Press Release

For immediate release on February 23, 2018

Media contacts at the end of release

Blast Off for a Journey Through the Universe with Gemini Observatory

Hawai‘i Island’s leading astronomy education and outreach program, Journey Through the Universe (“*Journey*”) is returning for its 14th year with a week of educational programming from March 2-9.

The *Journey* program promotes science education across east and north Hawai‘i Island school districts and inspires students to explore Science, Technology, Engineering and Math (STEM) fields by developing literacy in science. *Journey* endeavors to foster curiosity and wonder about our Universe, and the cutting-edge research and technology that is allowing us to understand our place in the cosmos like never before.

Journey Through the Universe, originally developed by the National Center for Earth and Space Science Education (NCESSSE), has expanded each year since its introduction in Hawai‘i by the staff of the Gemini Observatory. Last year alone, the *Journey* program reached over 8,800 students in 300 classrooms, and more than 80 astronomy educators shared their passion for science with students.

The *Journey* team hosts a number of immersive educational programs throughout the week. Astronomy educators from across the Big Island perform interactive workshops during classroom visits, provide teacher trainings, and host career panels and public astronomy events. Visiting educators from NASA New Horizon’s mission to Pluto are bringing “Pluto Palooza” to Hawai‘i for the first time. The program engages audiences with findings about Pluto and a look forward to the future of the mission to the distant world.

The week formally begins with an Astronomy Educator’s Reception, featuring Hilo-Waiākea/Ka‘ū-Kea‘au-Pāhoā (KKP) Complex Area Superintendent Keone Farias, *Journey* alumnus Devin Chu, and Gemini Observatory director Dr. Laura Ferrarese. The event is hosted by the Hawai‘i Island and Japanese Chambers of Commerce, which are long-time program partners. *Journey* also includes an “ambassador” program, which aids astronomy educators in the week’s events. Thirty *Journey* ambassadors are expected to assist the dozens of science educators this year as they bring the Universe into the local classrooms.

“Our teachers and staff are thrilled to continue our partnership with the *Journey* program,” said Keone Farias, “Providing our students with access to the unique resources and opportunities of the *Journey* program provides a stellar platform for implementation of the critically important *Next Generation Science Standards* by bringing astronomy into our classrooms,” continued Farias. “We are proud to be growing the program each year and inspiring more students and teachers to reach for the stars.”

BACKGROUND

Journey Through the Universe provides classroom visits and teacher trainings throughout the year. Gemini’s StarLab Portable Planetarium travels to kindergarten and first grade students in local

schools, offering students a fun way to engage with our Solar System and constellations, and helping teachers incorporate the planetarium into the classroom. In addition, Gemini hosts FamilyASTRO trainings to teach practical applications of classroom astronomy to families, youth groups, after-school programs, and other organizations. Every other year, NASA's Solar System Exploration Research Virtual Institute (SSERVI) leads a Lunar and Meteorite Sample Certification Workshop, in which teachers become certified to borrow samples from the Apollo missions, and to use NASA online tools to build appreciation for science among their students. *Journey* also offers teacher tours of the observatories on Maunakea.

Career panels featuring local observatory professionals are an important aspect of the *Journey* program. The panels allow students to discover the wide range of educational possibilities and career opportunities available at observatories and within the field. According to John Vierra, Gemini's Safety Coordinator and career panel participant, the panels are planned to inspire: "This is an opportunity to make contact with kids at an earlier age, exposing them to the opportunities that exist in their local community, and encouraging them to aim high. It inspires them to think outside the box about what they want to accomplish later in life."

Journey Through the Universe is instrumental in introducing astronomy educators and K-12 teachers to Next Generation Science Standards (NGSS). NGSS is working to implement common teaching standards across the U.S. that align with international benchmarks, and develop greater student interest in science. *Journey* provides workshop sessions for educators to learn about astronomy and applications of NGSS in their classrooms that are supplemented by other *Journey* events and interactive classroom visits.

"*Journey Through the Universe* would not succeed without the help of our community partners and sponsors, including the Department of Education, Hawai'i Island business community, Maunakea Observatories, and NASA, among many others," said Janice Harvey, *Journey Through the Universe* program coordinator. "Their continued support is a demonstration of their commitment to our community and the future of science education for Hawai'i students."

Media Contacts:

- **Janice Harvey**
Journey Through the Universe Program Coordinator
Gemini Observatory, Hilo, HI
E-mail: jharvey "at" gemini.edu
Phone: (808) 974-2603
- **Alexis Acohido**
Media Relations and Local Outreach Assistant
Gemini Observatory, Hilo, HI
E-mail: aacohido "at" gemini.edu
Phone: (808) 974-2528

About Gemini Observatory

The Gemini Observatory is a facility of the National Science Foundation (NSF-United States), the National Research Council (NRC-Canada), the Ministério da Ciência, Tecnologia e Inovação (MCTI - Brazil), the Ministerio de Ciencia, Tecnología e Innovación Productiva (MCTIP - Argentina), and the Comisión Nacional de Investigación Científica y Tecnológica (CONICYT - Chile), operated under cooperative agreement by the Association of Universities for Research in Astronomy, Inc. (AURA).

The international Gemini collaboration provides access to two identical 8-meter telescopes. The Frederick C. Gillett Gemini telescope is located on Maunakea, Hawai'i (Gemini North) and the Gemini South telescope is on Cerro Pachón in central Chile; together the twin telescopes provide full coverage over both hemispheres of the sky. The telescopes incorporate technologies that allow large relatively thin mirrors, under active control, to collect and focus both visible and infrared radiation from space. The Observatory provides the astronomical communities in each of the five participating countries with state-of-the-art astronomical facilities that allocate observing time in proportion to each country's contribution. In addition to financial support, each country also contributes significant scientific and technical resources.



Students learn how telescope mirrors are cleaned during a classroom presentation.



Students look through telescopes they built during a classroom visit.

Journey Through the Universe 2018

Gemini's flagship astronomy education and outreach program, Journey Through the Universe (Journey), celebrated a successful 14th year with a week of educational programming from March 5-9.

"Journey Through the Universe would not succeed without the help of our community partners and sponsors, including the Department of Education, Hawai'i Island business community, Maunakea Observatories, and NASA, among many others," said Janice Harvey, Journey Through the Universe program coordinator. "Their continued support is a demonstration of their commitment to our community and the future of science education for Hawai'i students."

DAY 1 - Monday, March 5th

Astronomy Educator's Reception at the Hilo Yacht Club

The Hawai'i Island Chamber of Commerce (HICC) and the Japanese Chamber of Commerce and Industry of Hawaii (JCCIH) hosted a celebration for the astronomy community, the Department of Education and the business community. This annual event featured Hilo-Waiākea/Ka'ū-Kea'au-Pāhoa (KKP) Complex Area Superintendent Keone Farias, Journey alumnus Devin Chu, and Gemini Observatory director Dr. Laura Ferrarese as guest speakers.



Left: UCLA Astronomy PhD student (and Hilo High alumnus!) Devin Chu. Right: Gemini Observatory Journey Team Leader Janice Harvey and Keone Farias, Superintendent of the Hilo/Waiākea and Ka'ū-Kea'au-Pāhoa Complex Areas.

Hilo High School Career Panel - Monday, March 5th

Journey Astronomy Educators visited classrooms in the Hilo-Waiākea/Ka'ū-Kea'au- Pāhoā Complexes as well as schools in Honoka'a, and Waimea on Hawai'i Island. Along with classroom visits, several observatory professionals held a panel at Waiākea and Hilo High schools to discuss the diverse careers available at an observatory.



Left to right: Gemini Safety Manager John Vierra, UCLA Astronomy PhD student (and Hilo High alumnus!) Devin Chu, Gemini Interim Director Laura Ferrarese, Astrobiology PhD student Niki Thomas, W. M. Keck Observatory Software Engineer Liz Chock, and W. M. Keck Observatory Chief of Operations Rich Matsuda.

Classroom Visits - Monday, March 5th

Our Public Information and Outreach department followed Gemini's Science Operation Specialist Jocelyn Ferrera and Science Fellow Matt Taylor to Waiākea Elementary School. The pair taught classes of 4th graders about constellations, stories behind Orion and the Big Dipper, then built the constellations in 3D and observed them from different perspectives.



Ferrera and Taylor instruct students on where to stand to construct constellations to iterate how perspective affects how constellations appear on Earth

DAY 2 - Tuesday, March 6th

Classroom Visits - Tuesday, March 6th

Journey educators (along with reporting crew from the Hawai'i Tribune Herald) followed former Gemini Public Information and Outreach intern Sylvia Kowalski to Waiākeawaena Elementary School. Kowalski taught the 3rd grade classes how to construct paper rockets — engineered using Scotch tape and plastic straws. Students also learned how rockets work, building their understanding of how humans get to space!



HOLLYN JOHNSON/Tribune-Herald

Left: Kowalski shows a student how to make her paper rocket. Right: Third-graders use their breath as fuel to launch their handmade paper rockets Tuesday during a Journey Through the Universe event at Waiākeawaena Elementary School in Hilo.

Pluto Palooza

This year's Journey Through the Universe program included NASA's Plutopalooza team. In July 2015, New Horizons reached dwarf-planet Pluto and captured incredible images, allowing us to study Pluto in stunning detail. The community was given a rare opportunity to meet the men and women who captured Pluto's "heart" with amazing images, personal stories, and fascinating science!

On Tuesday morning, the team met over 60 third graders at 'Imiloa Astronomy Center to explore Pluto and the features discovered by New Horizon's during its July 14, 2015 flyby. That evening, the team gave a free, public talk at the University of Hawai'i at Hilo.



*Left: The Pluto Palooza team Veronica Bray, Alice Bowman, Marc Buie and Randy Monroe (pictured from left to right) attend the Astronomy Educator's Reception at the Hilo Yacht Club
Right: John Hamilton, professor at University of Hawai'i at Hilo introduces the team to attendees*

Hilo High School Career Panel - Tuesday, March 6th



Left to right: Jason Kalawe, web architect at Gemini Observatory shares his career path and advice with Hilo High School Students. Today's panel also included East Asia Observatory's Acting Deputy Director Jessica Dempsey, Astrobiology PhD student Niki Thomas, UCLA Astronomy PhD student Devin Chu (pictured from left to right), and Gemini Safety Manager John Vierra (not pictured)

DAY 3 - Wednesday, March 7th

Classroom Visits - Wednesday, March 7th

We followed more of Gemini's Public Information and Outreach department into the classroom. Alexis Acohido, media relations and local outreach assistant, showed 7th graders at Waiākea Intermediate School the layers of a space suit, and explained the importance of each in protecting astronauts. Jasmin Silva, Media Relations and Outreach intern, taught Waiākea High School's AP Environmental Science class about exoplanet detection methods, including mathematical tools to determine the size of a planet, and the difficulty behind directly imaging planets that are outside of our solar system.



Left: Acohido explains one of the many layers of a spacesuit and demonstrates how an astronaut “gets dressed” for work. Right: Silva explains the “transit method” used to discover and classify exoplanets.

DAY 4 - Thursday, March 8th

Gemini North’s Safety Manager, John Vierra, visited Waiākeawaena Elementary School to teach students about our home, the solar system. Vierra taught them about each planet and their place in the solar system, leading to the construction of a “pocket solar system” which demonstrates the scale of the distance between the planets.



Left: Students, representing planets line up to demonstrate the order of our solar system. Right: Vierra faces many students eager to share their knowledge.

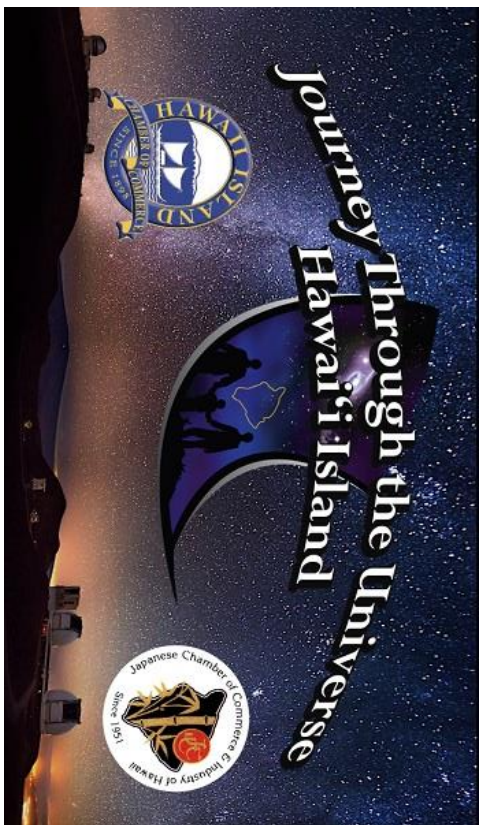
DAY 5 - Friday, March 9th

On the final day of this years Journey Through the Universe week, we again followed more of the Public Information and Outreach department into the classroom. Christine Copes, Outreach Assistant and Hannah Blomgren, Media Relations and Outreach intern, demonstrate the timeline of the universe as scaled down to one calendar year. Students guess when the events occurred by placing them on the calendar, later explained by Blomgren.

Blomgren created this activity, aiming to teach important events that occurred as the universe formed and evolved, and to illustrate how brief human existence is in the scheme of time.



Left: Copes and Blomgren assist students who are making their guesses on when pivotal astronomical and biological events happened. Right: Blomgren shows and explains the timeline of the universe, reiterating that when we scale the age of the universe to a year, humans have only been around for a few seconds!



Journey in the Classrooms







Gemini Observatory

March 6 at 9:29am · 🌐

...

14 Years of Journey Through the Universe!

#Gemini_Public Another incredible start to our flagship outreach program, Journey Through the Universe! Astronomy Educators from all over the world are visiting classrooms this week in Hilo, Waiākea, Honoka'a, and Waiimea on Hawai'i Island. Along with classroom visits, several observatory professionals held a panel at Hilo High school to discuss the diverse careers available at an observatory.

Pictured on the panel is (left to right) Gemini Safety Coordinator John Vierra, UCLA Astronomy PhD student Devin Chu, Gemini Interim Director Laura Ferrarese, Astrobiology PhD student Niki Thomas, W. M. Keck Observatory Software Engineer Liz Chock, and W. M. Keck Observatory Chief of Operations Rich Matsuda. Both John and Devin are Hilo High alumni!



Gemini Observatory

March 8 at 9:39am · 🌐

...

Journey and the Community!

The Hawaii Island Chamber of Commerce (HICC) and the Japanese Chamber of Commerce & Industry of HI (JCCIH) hosted a celebration for the astronomy community, the Department of Education, and the business community to start off the week of classroom visits for Journey Through the Universe (Journey). The event featured speakers including: Gemini Observatory Interim Director Laura Ferrarese, Mayor Harry Kim, Hilo-Waiākea/Ka'ū-Kea'au-Pāhoā Complex Area Superintendent Keone Farias, as well as Journey alumnus and Hilo High graduate, Devin Chu. In honor of today's International Women's Day, here are the women in the astronomy community that support the Journey program.





Gemini Observatory

March 9 at 5:20pm · 🌐

...

Journey Through the Universe 2018

#Gemini_Public Our week of Journey Through the Universe classroom visits has come to an end. We want to thank our astronomy educators and ambassadors, all of the Maunakea Observatories and the Maunakea Astronomy Outreach Committee - MKAOC, Nasa Sservi, the Hawaii State Department of Education, and our Hawai'i Island Business Community, including Hawaii Island Chamber of Commerce and Japanese Chamber of Commerce & Industry of HI. Journey Through the Universe is truly a community driven effort, and we want to thank you all for inspiring our keiki!

To close out this week, check out this video news coverage of our program from KITV! Special thanks to Canada France Hawaii Telescope Corporation for supplying video coverage.



Canada France Hawaii Telescope Corporation

March 12 at 2:26pm · 🌐

...

One stop on our Journey Through the Universe tour of our local schools... 1st grade at Wainaea Elementary School. We heard the students were fascinated by the snowy weather on Maunakea (glad someone likes it....) so CFHT and W. M. Keck Observatory staff talked to the kids about weather. The students then made their own snowflakes!





Thirty Meter Telescope added 7 new photos.

March 6 at 9:58am · Honolulu · 🌐

Looks like Virginia and Diana had a great time teaching the kids out at Kaumana Elementary yesterday. #JourneyThroughTheUniverse #2018 #KaumanaElementary #ImuaTMT #WeSupportTMT

...



Thirty Meter Telescope shared Photojournalist Hollyn Johnson's photo.

March 6 at 7:16pm · 🌐

Here's more on #JourneyThroughTheUniverse2018 that Virginia and Diana were a part of yesterday. #welovestem

...





Thirty Meter Telescope added 10 new photos.
March 7 at 11:31am · Honolulu · 🌐

...

From Virginia 🇺🇸🌟🌟🌟: We are having Photon Fun with some really brilliant stars at #Waiakeawaena Elementary & #Kaumana Elementary school today! Mahalo keiki for a great morning! #SuperStars! 🌟🌟🌟 #JTTU



East Asian Observatory
March 5 at 12:04pm · 🌐

...

More than 70 astronomy educators will be visiting local Big Island classrooms this week as part of the 14th annual Journey Through the Universe program. EAO staff kicked the week off this morning with visits to Waiakea and Kaumana Elementary.





Program
Master of Ceremonies
Newton Chu
Welcome Remarks



Bill Walter, President
 Hawaii Island Chamber of Commerce

Audrey Takamine, President
 Japanese Chamber of Commerce & Industry of Hawaii

Introductions

Janice Harvey
 Gemini Observatory, Journey Through the Universe Team Leader

Dennis "Fresh" Onishi
 Governor's Representative for East Hawaii

Harry Kim, Mayor
 County of Hawaii

Chad "Keone" Farias
 Dept. of Education Superintendent
 Ka'u-Kea'au-Pahoa Complex and Hilo-Waldkeo Complex

Laura Ferrarese, Director
 Gemini Observatory

Sandra Dawson
 TMT Hawaii Community Affairs

Devin Chu
 Hilo High School Graduate,
 Journey Graduate, UCLA Graduate Student



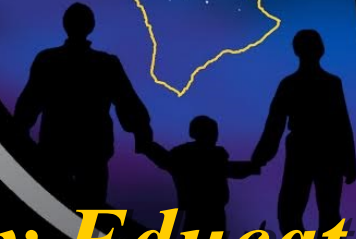
**Mahalo to our
 2018 Astronomy Educators**



Alexis Acohido	Geoffrey Haines-Stiles	Callie Matulonis
Virginia Aragon-Barnes	John Hamilton	Tony Matulonis
Mike Aina	Janice Harvey	Peter Michaud
Erna Akuginow	Saeko Hayashi	Joseph Minafra
Christian Andersen	Stephanie Henry	Brian Mitchell
Christoph Baranec	Michael Hoenig	Les Mizuba
Kerri Beisser		Randy Monroe
Tishanna Ben		Junichi Noumaru
Hannah Blogren		Emily Peavy
Alice Bowman		Shelly Pelfrey
Veronica Bray		Andreea Petric
Jerry Brower		Tae-Soo Pyo
Marc Buie		Lucio Ramos
André-Nicholas Chene	Stewart Hunter	Bo Reipurth
Devin Chu	Russell Kackley	Rodrigo Romo
Christophe Clergeon	Carolyn Kaichi	Kiana Schubert
Sandra Dawson	Yuko Kakazu	Jasmin Silva
Brian Day	Jason Kalawe	Doug Simons
Kyla Defore	Ji Hoon Kim	Breann Sitariski
Tony Denault	Leslie Kissner	Gordon Squires
Jeff Donahue	Scott Kleinman	Marianne Takamiya
Angelic Ebberts	Shintaro Koshida	Matt Taylor
Jocelyn Ferrara	Sylvia Kowalski	Niki Thomas
Laura Ferrarese	Mary Beth Laychak	Tomonori Usuda
Scott Fisher	Chien-Hsiu Lee	John Vierra
Miriam Fuchs	Julien Lozi	Tom Winegar
Tom Geballe	Nadine Manset	Siyi Xu
Jeff Goldstein	Rich Matsuda	Sherry Yeh
Alyssa Grace	Grant Matsushiga	Michitoshi Yoshida

Fourteen years... the Journey Continues...

**Journey through the Universe
Hawai'i Island**



Astronomy Educators Reception

**Monday, March 5, 2018 5:00-8:00 pm at the Hilo Yacht Club
\$35 Pupu and No-host Cocktail 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.

**Presented by the Japanese Chamber of Commerce & Industry of Hawaii
and the Hawai'i Island Chamber of Commerce**

www.gemini.edu/journey for additional information



Pre-registration required by Monday, February 26



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 _____

Cardholder's name _____

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

Take a Journey Through the Universe

By **TOM CALLIS**
Hawaii Tribune-Herald

Journey Through the Universe has entered more than 300 classrooms in the past 14 years, according to Gemini Observatory outreach manager Janice Harvey.

The Gemini-led program sends more than 80 observatory professionals to talk with students about the cosmos and share their passion for science.

But it wasn't guaranteed it would last this long.

Hawaii Island's Journey Through the Universe was initially one of several around the country, but their funding ran out in the second year, Harvey said. She said local businesses and organizations have stepped in to provide the money to sustain and grow the effort.

Harvey said it started in the Waikeala complex schools but now is nearly an islandwide program.

"We decided as a community we



Andre-Nicolas Chene of the Gemini Observatory tells third-grader Dazlyn Urbano-Alves about the distances between stars in 2015 during the Journey Through the Universe program.

HOLLYN JOHNSON
Tribune-Herald

were going through with it," she said.

Harvey said the observatories see it as part of their "moral obligation" to the island that supports them.

"It peaks their interest" in science, she said. "It's about much

more than astronomy."

The program visits classrooms from kindergarten through 12th grade.

For students who want to pursue a job at a telescope, there's the Akamai Internship Program.

Austin Barnes, program manager, said they place college students at observatories and other high-technology businesses in the state. They are set up with mentors and gain valuable real-world experience in fields of science, technology, engineering and mathematics, commonly known as STEM.

The program started in 2003 and has helped more than 350 Hawaii students.

Barnes said it helps many find careers in Hawaii when they may think that's not possible in their fields.

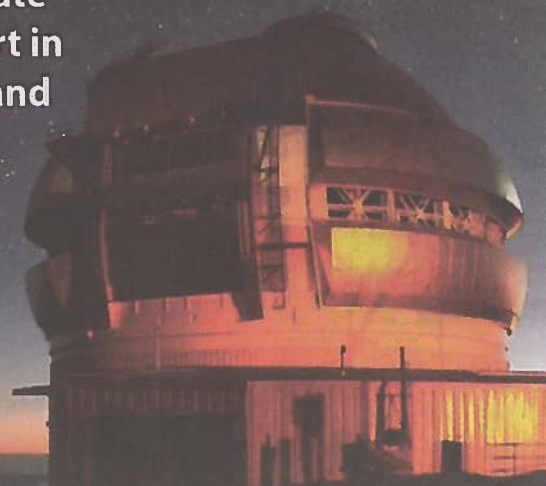
"I was of the mind I would have to leave like a lot of people are," said Barnes, a former intern.

Akamai is funded by the Hawaii Community Foundation, Thirty Meter Telescope, Air Force Office of Scientific Research, National Science Foundation, Daniel K. Inouye Solar Telescope and National Solar Observatory.

Email Tom Callis at tcallis@hawaii-tribune-herald.com.

MAHALO HAWAI'I for EXPLORING THE UNIVERSE with us!

Your friends and neighbors at Gemini Observatory appreciate your participation and support in humanity's quest to understand our place in the cosmos.



AURA



NRC-CMRC

Ministry of
Science, Technology
and Innovation



Ministerio de
Ciencia, Tecnología
e Innovación Productiva
Presidencia de la Nación



GEMINI
OBSERVATORY
Exploring the Universe, Sharing its Wonders



Japanese Chamber of Commerce & Industry of Hawaii

Promoting business and Japanese values for nearly 70 years

April 2018 Oshirase (<http://jccih.org/april-2018-oshirase/#education2>)



Successful Journey through the Universe thanks to YOU

By Yuko Kakazu, Education Committee & Subaru Telescope

“Journey through the Universe (Journey) inspired me to become an astronomer,” said Devin Chu during his presentation at the Journey reception at Hilo Yacht Club on March 5. Local Hilo boy, now pursuing his Ph.D. in astronomy at UCLA, Devin spoke from the heart how he got into astronomy (Journey!) and the importance of outreach programs. People were reaching out for a Kleenex as Devin’s talk was so passionate, personal, and moving.

This year marks the 14th anniversary of the Journey program. About 80 “Astronomy Educators” from the Maunakea Observatories, University of Hawaii, and various institutions in the mainland converged on the Big Island to visit 9,000 students in Ka’ū-Kea’au-Pāhoa, Hilo-Waiākea, Laupahoehoe, Pa’auilo, and Waimea. Journey aims to promote science education in schools and inspire our keikito explore science, technology, engineering and math (STEM) fields. Devin is a great example embodying the immense success of the program.

As Janice Harvey, the organizer of the Journey program at Gemini Observatory states, Journey is a community-driven program and is only possible with support from all of you. Japanese and Hawaii Island Chambers of Commerce have supported the Journey program from its beginning. At the March 5 Journey reception, there were over 150 people celebrating the success of this largest outreach program in the state of Hawaii. For astronomers and engineers, the Journey reception is a great place to meet local business leaders and school teachers. The evening was filled with smiles, laughs, tears (due to Devin’s talk), great food, delicious KTA cake (mahalo KTA for generous donation), and building fellowship.

On behalf of Maunakea Observatories, we thank all of you for your support and helping our keiki reach to infinity and beyond. Thank you!

Pluto Palooza

NASA's New Horizons Mission to Pluto and the Kuiper Belt

Meet the men and women who captured the world's imagination with the "heart" on Pluto - amazing images, personal stories, fascinating science!

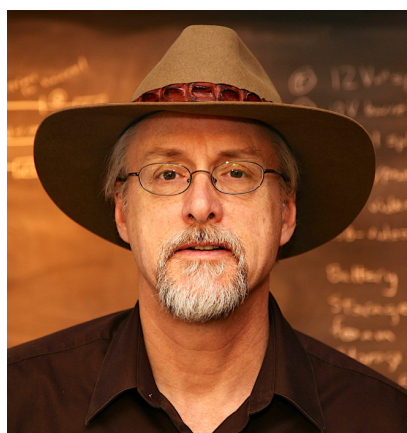


Tuesday March 6, 2018 from 6 to 7:30 pm

UH Hilo Science and Technologies Bldg., Room STB 108

More info? John Hamilton - jch@hawaii.edu

www.gemini.edu/journey



Marc Buie, longtime "Pluto-phile", discovered Kuiper Belt Object, MU69 New Horizons' next fly target



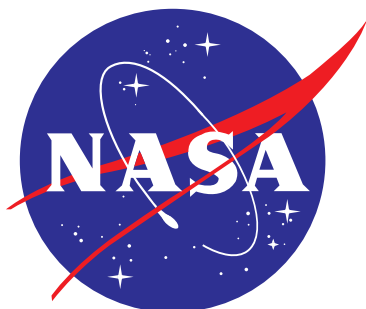
Veronica Bray, planetary geologist, comparing volcanoes & glaciers on Hawaii and Pluto!



Randy Monroe, science educator, stepson of Jim Christy, discoverer of Pluto's giant moon, Charon



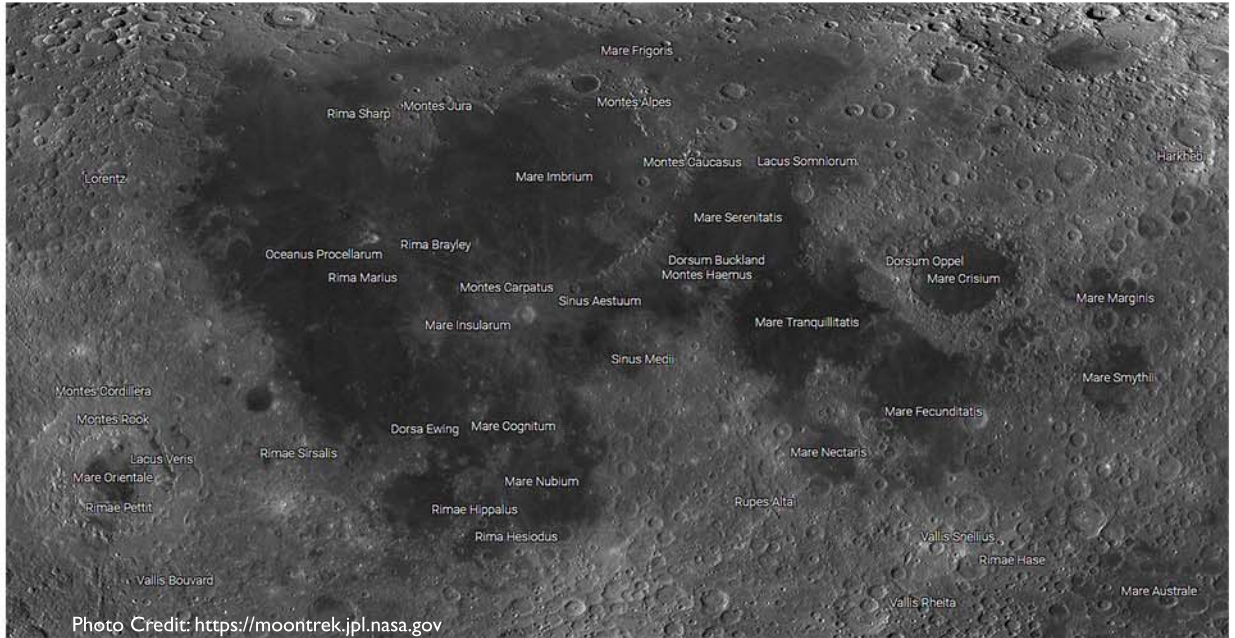
Alice Bowman, MOM (Mission Ops Manager) responsible for spacecraft safety and mission success



UNIVERSITY of HAWAII®
HILO



W. M. Keck Observatory and Journey Through the Universe
Present:



Brian Day

*Lead for Lunar and Planetary Mapping and Modeling,
Solar System Exploration Research Virtual Institute, NASA Ames Research Center*

Journey Through the Universe: Landscapes of the Moon and Mars

Brian Day will give a demonstration of the lunar and planetary mapping and modeling portals his team developed at NASA. He will take the audience on a tour of potential landing sites that NASA is considering for future missions to the Moon and Mars. He will also examine how the giant asteroid Vesta was almost destroyed by cosmic impacts, and even give a sneak peak at NASA's upcoming portal for one of Mars' moons, Phobos. These portals are used for mission planning and planetary science, but they are also designed for education and outreach in the home or classroom.

March 7, 2018

7:00 p.m.

Gates Performing Arts Center, HPA Campus

Free and Open to the Public

*Keck Astronomy Talks are supported by the
Rob and Terry Ryan Foundation*

W. M. Keck Observatory
65-1120 Mamalahoa Hwy.
Kamuela, HI 96743
www.keckobservatory.org



ASTRONOMY
TALK



March 10-17, 2017

Astronomy Educator Profiles



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

Alexis Ann Acohidlo 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 Hawaii Island last year and is currently part of the Public Information and Outreach department at Gemini Observatory in Hilo, Hawaii. In 2013, she was part of the Keamai Workforce Initiative and interned at the Institute for Astronomy on Maui where she worked on parallax ranging methods for point source objects.



Christian Andersen
PISCES
Contact: canderse@hawaii.edu

Christian Andersen is the Operations Manager at the Pacific International Space Center for Exploration Systems (PISCES), and leads the agency's additive manufacturing & construction projects at its Laser Lava Lab. Andersen started his career conducting research in inertial confinement fusion at Lawrence Livermore National Laboratory, Ecole Polytechnique, and Rutherford Appleton Laboratories. As Operations Manager, he's worked on a variety of PISCES projects in transitioning aerospace technologies to terrestrial applications and analogue field testing. Andersen is also a Lecturer and Affiliate Faculty in the Physics & Astronomy Department at the University of Hawaii at Hilo, and the Vice-Chair of the Space Resources Technical Committee for the AIAA (American Institute of Aeronautics and Astronautics). He holds a B.S. in Physics from San Jose State University and a M.S. in Engineering from U.C. Davis.



Virginia Aragon-Barnes
Thirty Meter Telescope Project
Contact: varagon@tmt.org

Virginia Aragon-Barnes had a passion for science and a natural curiosity about how and why things worked from a very early age. After a few earthquakes and a one-day lesson on volcanoes in a junior high physical science course she was hooked on Geology. She moved to Hawaii to pursue and successfully obtain a Bachelor's in Geology at the University of Hawaii at Hilo and is currently pursuing a Master's degree. Since graduation, her career has taken her to workplaces such as the active lava flows of Kilauea, the beautiful summits of Mauna Kea and Mauna loa and the lush native forests cared for and protected by our state. Currently, Virginia is the Environmental, Health & Safety Compliance Engineer for the Thirty Meter Telescope. Virginia continues to pursue her personal commitment of inspiring Hawaii's keiki to become future scientists through educational outreach.



Jennifer Baer
NASA SSERVI
Contact: jennifer.a.baer@nasa.gov

Jennifer Baer is a graphic designer at NASA's Solar System Exploration Research Virtual Institute, SSERVI. After graduating with a BFA in graphic design from Iowa State University, she worked for Coudal Partners Advertising in her hometown of Chicago. She made her way out west to work at NASA Ames Research Center, Silicon Valley. She has worked with NASA's Mission Proposal teams collaborating on information design for space missions. Working with scientists and engineers, she has helped communicate design solutions by distilling complex data sets and technical details to refine and illustrate graphics in a concise, simplified and of course, very attractive product. Deft at creative problem solving of all manner of visual communication, Jennifer enjoys the disciplines of typography, illustration and design equally.

For the past seven years, she has worked for SSERVI, formerly the Lunar Science Institute, as a senior graphic designer focusing her talents on print media for conferences as well as coordinating public outreach graphics for the space enthusiast community at large. When she's not busy sketching on her iPad, she can be found riding her bike up the hills of Northern California.



Christoph Baranec is an assistant astronomer at the Institute for Astronomy. He designs, builds and uses adaptive optics systems — instruments that overcome the blurring effects of the Earth's atmosphere.

Baranec won an Alfred P. Sloan Research Fellowship in 2014 and the UH Board of Regents' Medal for Excellence in Research in 2017 for leading the development of the world's first automated adaptive optic system, Robo-AO. Observations from this system appear in nearly 40 scientific publications. These include several adaptive optics surveys with the most numerous observations ever performed, including all of the several thousands of Kepler candidate exoplanet hosts and all known stars within 80 light years, observable from the northern hemisphere.

Baranec currently leads the effort to deploy an upgraded version of Robo-AO to the University of Hawai'i 2.2-meter telescope which will achieve resolutions approaching that of the Hubble Space Telescope.

Christoph Baranec

Institute for Astronomy, UH

Contact: baranec@hawaii.edu



Kerri Beisser is Program Manager for the Space Dept. of the Applied Physics Laboratory at the university. Before coming to APL, Ms. Beisser worked for the Challenger Center for Space Science Education, where she was the Project Manager for national programs for NASA's Cassini, STARDUST and Galileo missions. She also worked for the U.S. Space and Rocket Center and Space Camp in Huntsville, Alabama. Here she conducted student and teacher training in the history of the space program and in the fields of aerospace, engineering, technology, and space station/space shuttle activities. She also led corporate training programs and special events for Space Camp, such as training the cast of the movie Apollo 13. Since joining APL in 1999 in the Space Department, Ms. Beisser has managed the education and public outreach programs and the engagement and communications program for NASA missions from the Sun to Pluto and beyond. These have included the Near Earth Asteroid Rendezvous (NEAR) mission, the NASA "Vision Mission" Innovative Interstellar Probe, the Thermosphere, Ionosphere, Mesosphere, Energetics and Dynamics (TIMED) mission, for the Solar-Terrestrial Relations Observatory (STEREO) spacecraft, the Compact Reconnaissance Imaging Spectrometer for Mars (CRISM) instrument for the Mars Reconnaissance Orbiter (MRO), and the Radiation Belt Storm Probes Mission (RBSP). Currently, she is managing the engagement and communications programs for the New Horizons mission to Pluto and the Kuiper Belt, and the Parker Solar Probe Plus mission, slated to launch in July 2018.

Kerri Beisser

Johns Hopkins University APL

Contact: kerri.beisser@jhuapl.edu



Tishanna Bailey Ben is the Hawai'i Community Outreach and Education Programs Leader for the National Solar Observatory (NSO). She graduated from the University of Hawai'i with a Bachelor of Arts (B.A.) in cell and molecular biology and a Master of Science (M.S.) in tropical conservation biology and environmental science. Prior to her position at NSO, she worked as a laboratory technician and graduate researcher with the Research Corporation of the University of Hawai'i (RCUH). She also taught middle and high school science courses at Ka'u High and Pahala Elementary School on the Big Island.

Tishanna Ben

National Solar Observatory

Contact: tben@nso.edu



Hannah Blomgren is a Public Information and Outreach Intern for Gemini Observatory. She is a current undergraduate student in astrophysics, math, and interplanetary relations at the University of Utah. Before moving to Hilo, Hannah worked for Bryce Canyon National Park as an astronomy outreach intern, or Dark Ranger, giving lectures, presenting planetarium shows, and teaching visitors about the connections between the cosmos and the world around us. When she is not immersed in astronomy, Hannah can be found playing guitar, hiking, or writing poetry.

Hannah Blomgren

Gemini Observatory

Contact: hblomgren@gemini.edu



Kelly Blumenthal is a 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 in 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.

Kelly Blumenthal

UH Institute for Astronomy

Contact: kblumny@ifa.hawaii.edu



Alice Bowman
Johns Hopkins University APL
Contact: Alice.Bowman@jhuapl.edu

Alice Bowman works for the Johns Hopkins Applied Physics Laboratory in Laurel, Maryland, where she is the Mission Operations Manager—or “MOM”—for NASA’s New Horizons mission, which made the first visit to Pluto in 2015. She leads the team that controls the spacecraft, now about 3.7 billion miles from Earth. Her love of space exploration started as a child saving newspaper clippings of the Moon landing and other planetary visits. After studying physics and chemistry at the University of Virginia, Alice joined the California Institute of Technology, where she developed tumor-targeting micelles, which have successfully been used to treat cancer and fungal infections; programmed computer simulations to study how explosions affect soil compression and wave propagation; and developed silicon-based semiconductors that detected infrared waves emitted by cruise missiles and stars. From there, Bowman was a satellite technical advisor to U.S. Space Command, advising the agency on various infrared-signature detections. She joined the Johns Hopkins Applied Physics Laboratory in 1997, and has served on various spacecraft teams such as the Midcourse Space Experiment and CONTOUR, in addition to New Horizons. In her time away from work, she and her husband lead a community jam session twice a month and play in a bluegrass band.



Veronica Bray
University of Arizona
Contact: vbray@jpl.arizona.edu

Veronica Bray is a research scientist at the University of Arizona’s Lunar and Planetary Laboratory. She started her research at University College London, measuring lava flows on Venus. She completed her PhD at Imperial College London studying comet impacts into Europa using both observations and computer modeling. She is now a science team member on a number of missions to rocky and icy worlds all over the solar system: LROC (the Moon), HIRSE (Mars), *Cassini* (Saturn system) and *New Horizons*. In addition to her specialty of impact cratering, Veronica brings expertise in “comparative planetology” to the Geology and Geophysics section of the *New Horizons* team. Veronica continues the theme of hard-hitting, fast moving projects in her hobbies: she is an archer and metal/rock drummer! She is a targeting specialist for HIRSE on board the *Mars Reconnaissance Orbiter*, and is also an adjunct lecturer of astrobiology.



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 Tatooine, Azeroth, or Jita in The Forge.



Marc Buie
Southwest Research Institute
Contact: buie@swri.edu

Marc Buie is a *New Horizons* Co-Investigator, currently working at the Southwest Research Institute in Boulder, CO. Pluto has been a major focus of Marc’s research since 1983, and he was a founding member of the so-called “Pluto Underground” that promoted America’s first mission to the 9th planet starting in 1989. Marc spent many years at the Lowell Observatory, where Pluto was first discovered in 1930. More recently he spent ten years searching for a Kuiper Belt Object that *New Horizons* might fly on to after the Pluto encounter. Marc was the first to spot this elusive body in 2014, now known as “MU99,” using the Hubble Space Telescope, and has directed a large effort to understand this distant, cold and tiny world. He also has a project (morecon.net) that is enlisting students to help measure the sizes of other objects in the Kuiper Belt. Says Marc: “I may be thin-blooded transplant from Louisiana but my imagination always runs away with me when thinking about the super cold and complex environments on Pluto and elsewhere in the Kuiper Belt.”



André-Nicolas Chené
Gemini Observatory
Contact: achene@gemini.edu

André-Nicolas Chené 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 Man 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 Hawaii are long observing runs at Mauna Kea, and his daily bike ride to work up and down Puunako St.



Devin Chu

Univ. of California Los Angeles
Contact: dchu@astro.ucla.edu

Devin Chu was raised in Hilo, Hawaii and graduated from Hilo High School in 2010. He received his Bachelor's degree from Dartmouth College in Physics and Astronomy in 2014 and Masters of Science in Astronomy from UCLA in 2016. He is currently a graduate student at UCLA working with Professor Andrea Ghez. His research involves studying the orbits of stars around the supermassive black hole at the center of the Milky Way. Devin was a frequent participant in Journey Through the Universe while growing up.



Christopher Clergeon

Subaru Telescope
Contact: christophe@naoj.org

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).



Kathy Cooksey

UH Physics & Astronomy
Contact: kcooksey@hawaii.edu



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 she was 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://lmm.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 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 Aurigrid-MAAC mission to record fragments of comet Kless 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.



Kyla Defore

PISCES
Contact: deforeky@hawaii.edu

Kyla Defore graduated from the University of Hawaii at Hilo December 2016 with her Bachelor of Arts (B.A.) in Geology, focusing on planetary science. Kyla currently works for the Pacific International Space Center for Exploration Systems (PISCES) as a Geology Technician but was working as an intern every summer for the past three years. Kyla's current research mainly focuses on basalt manufacturing and Martian/Lunar exploration.



Tony Denault

NASA IRTF

Contact: denault@ifa.hawaii.edu

Tony Denault is a systems programmer for the NASA Infrared Telescope Facility (IRTF), Institute for Astronomy. He graduated from UH Mānoa with a BA in Information and Computer Science in 1986, and has been with the IRTF since 1989. His primary responsibility has been the development and support of IRTF instrumentation, telescope control system, computer systems, and network.



Daniel Devost

Canada-France-Hawaii Telescope
Contact: devost@cft.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.

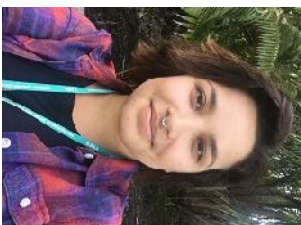


Angelic Ebberts

Gemini Observatory

Contact: aebbers@gemini.edu

Angelic Ebberts 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.



Jocelyn Ferrara

Gemini Observatory

Contact: ferrara@gemini.edu

Jocelyn Ferrara recently joined the Gemini Observatory as a Science Operations Specialist. This native Californian moved to New York City to earn her B.A. in Physics & Astronomy at Barnard College of Columbia University, which she completed in 2014. An observing run at the NASA IRTF during undergraduate studies sparked her interest in working for telescope operations. She then worked at the Space Telescope Science Institute in Baltimore as an operations specialist for the Hubble Space Telescope and as both a test & systems engineer for the upcoming James Webb Space Telescope. As part of the Johns Hopkins Whiting School of Engineering for Professionals, Jocelyn is also working on a masters in space systems engineering, one course at a time. A driving force that keeps her sane and inspired in the field is working to improve diversity and inclusion in the workforce and enabling women & minorities to pursue and thrive in careers in STEM.



Laura Ferrarrese

Gemini Observatory

Contact: ferrarrese@gemini.edu

Laura Ferrarrese is the Interim Director of the Gemini Observatory. A native of Italy, Laura moved to the US as an undergraduate in 1990. Little did she know that she would still be in North America 27 years later! After receiving her PhD from Johns Hopkins University in 1996, she moved to the California Institute of Technology as a Hubble Postdoctoral Fellow. From there, she went back across the country to Rutgers University as a professor, only to move back west four years later as a research astronomer at the Herzberg Institute of Astrophysics in Victoria, British Columbia, where she plans to return at the end of her current Gemini appointment. Laura's research interests range from the study of nearby galaxies and galaxy clusters, to investigating "supermassive" black holes and the unexpected connections they share with the galaxies at whose center they reside. To measuring the Hubble constant and the age of the Universe. In her spare time, Laura enjoys cooking with her husband Pat, playing with their three cats, Kyokki, Suki and Tono, practicing her cello, gardening, and a number of other things she is now resigned to defer until retirement!



Scott Fisher
University of Oregon
Contact: rsf@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.



Miriam Fuchs
Submillimeter Array
Contact: Miriam.fuchs@cfa.harvard.edu

Miriam (Mimi) Fuchs is a telescope operator and outreach coordinator for the Smithsonian Astrophysical Observatory's Submillimeter Array on the Big Island of Hawaii. She received her B.S. in Astrophysics and History at Haverford College in 2013. She went on to work in informal science education, and has helped run public observing programs, astronomy clubs and space camp. Mimi loves to spend her days making astronomy more accessible and engaging for learners of all ages! When she's not on the summit of Mauna Kea, you can find her snorkeling, dancing, and eating lots of Thai food.



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@nesse.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://blogonthemiverse.org>.



Alyssa Grace
Maunakea Visitor Information
Station

Alyssa Grace was an administrative assistant for Journey through the Universe and a University of Hawaii at Hilo senior studying Psychology, Astronomy, and Biology. 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.



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

Oliver 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. Oliver 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. Oliver 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, Oliver received a Presidential Early Career for Scientists and Engineers award from President Bush at the White House. Oliver 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.



Geoff Haines-Stiles
Passport to Knowledge

Contact: ghs@passporttoknowledge.com

Geoff Haines-Stiles is a longtime producer, director and writer of science documentaries and broadcast specials for PBS and other networks. He was a Senior Producer and Series Director on Carl Sagan's classic Emmy-winning COSMOS series, now seen by close to a billion people worldwide, and produced and wrote NOVA's "Is Anybody Out There?" with comedian Lily Tomlin. He worked at the 1992 Earth Summit in Rio with then-Senator Al Gore on what was to be the "Earth in the Balance" mini-series (EP: Lorne Michaels, SNL), until presidential politics intervened. As the Internet developed, with partner Erna Akunigow, he created the Passport To Knowledge series of "electronic field trips to scientific frontiers," which included the first real-time broadcast interaction with the South Pole, and LIVE FROM THE RAINFOREST, airing simultaneously in both North America and Brazil. In 2012 he wrote, produced and directed the three-part PBS special series, "Earth: The Operators' Manual," on climate change science and clean energy solutions, also broadcast internationally. His latest public television series is THE CROWD & THE CLOUD on "Citizen Science in the Digital Age", funded by NSF (EHR/ASL), which premiered on the WORLD Channel in April 2017, and which will continue to air on PBS stations through 2020. All programs are accessible online at CrowdAndCloud.org. Since 2004, Haines-Stiles has been documenting NASA's *New Horizons* mission to Pluto and the Kuiper Belt, in a series of podcasts and two documentary specials, PASSPORT TO PLUTO (2006-2007) and THE YEAR OF PLUTO, 2015.



John Hamilton
UHH Physics & Astronomy, PISCES

Contact: ich@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 LSRU 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.



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 46 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.



Saeko Hayashi
NAOJ, Mitaka

Contact: saeko@naoj.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 (JNLTT) 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 the 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". After being in Hilo for almost two decades, Saeko moved temporarily to the headquarters of the NAOJ at Mitaka, Tokyo from where she helps making a big mirror.



Stephanie W. Henry

NASA Marshall Space Flight Center

Contact:

Stephanie.L.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 Planetary Missions Program 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 11 years. She is married and has a 18-year-old stepson. Stephanie enjoys traveling, shopping, tennis, and spending time with her family in her spare time.



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 CIRSI, 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.



Stewart Hunter

Mauna Kea Support Services

Contact: shunter@ifahawaii.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.



Russell Kackley

Subaru Telescope

Contact: rkackley@mao.lor

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 Hawaii. 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 has mentored several school robotics teams and serves as a Judge at robotics competitions.



Carolyn Kaichi

UH Institute for Astronomy

Contact: kaichic@ifahawaii.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 was born and educated in Hawaii 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: Imagination 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@nao.jorg

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 Hawaii¹ 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.



Ji Hoon Kim

Subaru Telescope

Contact: jhkim@nao.jorg

Ji Hoon Kim is a support astronomer at Subaru Telescope. Born and raised in Seoul, Korea, he became interested in space and time while watching Galaxy Express 999, a Japanese TV series. After finishing his undergraduate and military duty in Korea, he decided to pursue his professional career outside of Korea. He received his PhD in Astronomy from University of Maryland, College Park, then was a postdoctoral fellow at Johns Hopkins University and Seoul National University. He originally studied very faint galaxies dubbed low surface brightness galaxies using optical and near-infrared imaging and declined to be considered as 'AGN guy.' Then he worked on studying how AGN host galaxies make stars using mid-infrared spectroscopy confessing it's impossible to run away from AGNs. Outside of stars and galaxies, he enjoys reading Vonnegut, looking at Escher's works, listening Bach, U2, and Clifford Brown, and watching Niners, and Lakers.



Scott Kleinman

Gemini Observatory

Contact: skleinman@gemini.edu

Scott (there was a shortage of "t"s when he was born) **Kleinman** is the Associate Director of Development at Gemini North. He helps developing and bringing to fruition the next generation of Gemini instruments. He joined Gemini from the Subaru Telescope where he served as the Instrument Division Chief. Prior, he served as the Site Science Manager/Deputy Head of Survey Operations for the Sloan Digital Sky Survey. He has been the Associate Director of the Whole Earth Telescope and still sits on its board. Scott received his Ph.D. from the University of Texas in 1995. He studies various aspects of white dwarf stars, the longest lived (and final) stage of most stars in the Universe. Scott also works with data from large astronomical surveys which are ushering in a new era of observational astronomy. When not working (when is that?), Scott likes surfing, live music, and maintaining/modifying his car.



Shintaro Koshida

Subaru Telescope

Contact: koshida@nao.jorg

Shintaro Koshida is a support astronomer at Subaru Telescope since September 2014 and working on supports for observations using a wide field-of-view camera for taking images in visible light, "Hyper Supreme Cam (HSC)". He is originally from Japan and have been interested in looking up night skies and watching the celestial objects since his childhood, which leaded to his Master's degree and PhD in astronomy at the University of Tokyo. Meanwhile studying about structures around super massive black holes at centers of galaxies, he has been interested in actual operations of telescopes and instruments for astronomy. He has worked for the telescopes at Maui (MAAGNUM telescope), Chile (miniTAO telescope at Atacama Desert, Santa Martina observatory of Pontificia Universidad de Catolica de Chile), and the Big Island (Subaru). He is enjoying very much not only a great quality of HSC data, but also great people, natures and cultures in the Islands of Hawaii.



Sylvia Kowalski

Sylvia Kowalski was a Public Information and Outreach Intern for Gemini Observatory. She graduated from the University of Washington with degrees in Physics, Astronomy and Drama and spent her college career working at science museums, observatories and presenting planetariums shows and public lectures with a dramatic twist! When she is not stargazing, Sylvia can be found eating, singing, playing her trumpet or doing Zumba. Happy Journey!



Mary Beth Laychak

Canada-France-Hawaii Telescope
Contact: manse@cft.hawaii.edu

Mary Beth Laychak is the outreach program manager at the Canada-France-Hawaii Telescope, her second time working at CHT. Previously, Mary Beth was one of CHT'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@nao.jorg

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.



Julien Lozi

Subaru Telescope
Contact: lozi@nao.jorg

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: manse@cft.hawaii.edu

Nadine Manset has been a resident astronomer at CHT since 1999, right after finishing her PhD thesis at Université de Montreal. Over the years, she has helped astronomers observe in classical mode at CHT, with spectrographs and imagers. Now in charge of the Queued Service Observing mode, she prepares observations for CHT'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.



Callie Matulonis

James Clerk Maxwell Telescope
Contact: cmatlunions@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 Maunakea observatories over the past ten years fulfilling a variety of positions including public outreach, laser operations, and telescope operations.



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 Strasburg 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 relation's 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 Minatra
NASA Ames Research Center
Contact:
joseph.minatra@nasa.gov

At the NASA Ames Research Center, **Joseph Minatra** 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 Astral



Brian Mitchell
NASA
Contact: briank.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.



Randy Monroe
Foothill Middle School, Walnut Creek, CA
Contact:
randy@monroescienceed.com

James R. (Randy) Monroe, middle school science teacher and son of Charlene (after whom Pluto's giant moon Charon is named), has spent his science teaching career embedding and integrating cutting-edge science technologies and techniques into processes and topics covered through a standardized Earth, Life and Physical Science curriculum. Monroe has a BA from California State University East Bay (CSUEB), a Multiple Subject Teaching Credential from CSUEB, and a Master's of Science in Technology Leadership. He served on the Contra Costa Math & Science Teachers Association Board, and recently on the committee for the California Subject Examination for Teachers (CSET) developing the new test for prospective teachers in Earth & Planetary Science. Employed by the Mt. Diablo Unified School District since 2001, he teaches middle school Earth, Life & Physical Science at Foothill Middle School in Walnut Creek, California. He is a longtime member of the New Horizon Education Team. Monroe's step-father, James Christy, discovered Pluto's largest moon Charon in 1978, named after Monroe's mother Charlene. Through his fascination with hydrothermal vent ecology, Monroe became adjunct faculty at the Department of Energy's Joint Genome Institute in the Microbial Ecology Program, and has also worked through Industrial Initiatives for Science and Math Educators (IISME) at Lockheed Martin as a Systems Engineer in missile defense studying infrared technologies.



Junichi Nourmaru
Subaru Telescope
Contact: nourmaru@nao.jorg

Junichi Nourmaru is the Associate Professor, Subaru Telescope, National Astronomical Observatory of Japan. He was born in Japan, graduated from Kyoto University, Japan and earned Ph.D in Astronomy. Junichi studied optical property of young stellar object such as emission nebulae and Herbig-Haro objects. He also joined instrumentation such as prototyping fiber-fed multi-object spectrograph and control system of the telescope. At National Astronomical Observatory of Japan in Tokyo, he joined the team to design control system and instrument interface of Subaru Telescope. He moved to Hilo in 1996 for Subaru Telescope Project and oversaw progress of construction of Subaru Telescope. After the first light of the telescope, he was in charge of operator's group and Instrument Division. Currently he is the division chief of Computer and Data Management Division and the Safety Officer of Subaru Telescope.

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.



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



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.



Andrea Petric

Canada-France-Hawaii Telescope

Contact: petric@cft.hawaii.edu

Andrea Petric is the Institute for Astronomy's, UH resident astronomer at CFHT. 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 growing super-massive black holes. Her current research focuses on optical and near-IR observations of the impact growing black holes have on the interstellar medium of their host galaxies and the fate of molecular gas in merging galaxies. She has been a mentor for the Maunakea scholars program since its inception. A. Petric taught Galaxies and Cosmology, Quantum Mechanics at UH Hilo, and is currently teaching a seminar on the Co-evolution of Supermassive Black Holes and Host Galaxies at UH Manoa. She also makes regular class room visits both on the Big Island and Oahu.



Tae-Soo Pyo

Subaru Telescope

Contact: pyo@nao.jorg

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@ifa.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

University of Hawaii at Hilo

Contact: mfr@hawaii.edu

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 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: rfvromomo@gmail.com

Rodrigo Romo is the Program Manager for the Pacific International Space Center for Exploration Systems (PISCES) and is responsible for overseeing all operations and finances of the Agency. He joined PISCES in 2014 as Project Manager and was responsible to oversee the development of all the navigation & control systems, imaging systems, communications & networking systems, sensors and data telemetry systems for the PISCES planetary rover Helelani. Romo was also the Project Manager for the robotic construction of a landing pad using only Hawaiian basalt as the materials of construction. This was a collaborative project between PISCES, NASA, Honeybee Robotics, ODG and Hawai'i County R&D and demonstrated the feasibility of constructing infrastructure on the Moon or Mars through robotic teleoperations. 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.



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 astero seismic 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.



Doug Simons
Canada-France-Hawaii Telescope
Contact: simons@ccht.hawaii.edu

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-Hawaii 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.



Breann Starski
UCLA
Contact: bstarski@astro.ucla.edu

Breann Starski 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 Level--the award-winning astronomy outreach group at UCLA--for four years. Breann also likes studying history, traveling, playing various sports, and reading!



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 Unscrowed 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.



Mariamne Takamiya
UH Hilo Dept. of Physics and Astronomy
Contact: takamiya@hawaii.edu

Mariamne Takamiya is associate professor of Astronomy at UH Hilo where she teaches General Physics, General Astronomy, and Stellar Astronomy. Dr. Takamiya obtained her B.Sc. in Physics and M.Sc. in Astronomy from the Universidad de Chile and her M.Sc. and Ph.D. in Astronomy and Astrophysics from the University of Chicago.



Matt Taylor
Gemini Observatory
Contact: mtaylor@gemini.edu

Matt Taylor is a Gemini Science Fellow at Gemini Observatory since June 2017. He did his undergraduate degree at University of Victoria on the west coast of Canada before completing his PhD at Universidad Católica de Chile in Santiago, Chile and as a student fellow at the European Southern Observatory's Chilean headquarters. His research interests revolve around studying low mass star systems like globular clusters, ultra-compact dwarfs, and dwarf galaxies orbiting giant galaxies beyond the Milky Way. When not researching or supporting Gemini operations he enjoys hiking, swimming, and playing board games. Now in Hawai'i he hopes to be a positive contributor to the astronomy community through outreach and educational endeavors like Journey Through the Universe.



Tomonori Usuda
National Astronomical Observatory of Japan
Contact: usuda@nao.jo.rg

Tomu Usuda earned his PhD in Astronomy at the University of Tokyo in 1997. He is an Optical-Infrared astronomer at NAOJ (National Astronomical Observatory of Japan) currently leading TMT (Thirty Meter Telescope) project as the director of TMT-Japan project. Previously, he was the associate director of Subaru Telescope from 2006 to 2013. His research interests are telescope & science instruments and spectroscopic studies of interstellar medium and star/planet formations.



John Vierra
Gemini Observatory
Contact: vierra@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 started 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.



Tom Winegar
Subaru Observatory
Contact: winegar@nao.jo.rg

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.



Siyi Xu
Gemini Observatory
Contact: sxu@gemini.edu

Siyi Xu joined Gemini Observatory in 2017 as an assistant astronomer. She is mostly interested in the end stage of planetary systems. Siyi grew up in Kunshan, a beautiful town of one million people in the east coast of China. She received a bachelor's degree in Astronomy from Nanjing University before moving across the pond to pursue a PhD in astronomy at the University of California, Los Angeles (UCLA). After that, she worked for the European Southern Observatory (ESO) in Germany for three years, before joining the Gemini family. Siyi enjoys all kinds of outdoor activities when she is not looking at the stars.



Sherry Yeh
Keck Observatory
Contact: syeh@keck.hawaii.edu

Sherry Yeh currently works at W. M. Keck Observatory as a Support Astronomer. 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, and her research focuses on the interplay between massive star clusters and their interstellar medium in nearby galaxies. Sherry has used near- and mid-infrared instruments on telescopes around the world and in the stratosphere. When Sherry is not exploring the Universe, she enjoys knitting and wandering in the volcano park.



Michitoshi Yoshida
Subaru Observatory

Michitoshi Yoshida, Director of the Subaru Telescope, received his PhD from Kyoto University. His career as a professional astronomer started at Okayama Astrophysical Observatory (OAO), which is a branch of National Astronomical Observatory of Japan (NAOJ). In 1995, Dr. Yoshida stayed in Hilo to support initial construction of Subaru Telescope. He also joined the development team of one of the spectrographs of Subaru, FOCAS, at the headquarters of NAOJ from 1998 to 2000. After completion of Subaru construction, he moved back to OAO and became its director. Dr. Yoshida worked for Hiroshima Astrophysical Science Center, Hiroshima University as the director from 2010 to 2017. He was then appointed as the director of Subaru from this April. Dr. Yoshida's main research field is optical-infrared observational astronomy of galaxies and high energy transient objects. Recently, he is interested in gravitational wave and its related astronomical/physical phenomena.