

# Journey Through the Universe

2014

## Astronomy Educator Profiles



**Nobuo Arimoto**

**Subaru Observatory**

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



**Christoph Baranec**  
**UH Institute for Astronomy**  
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**Christoph Baranec** joined the University of Hawai'i, Institute for Astronomy faculty at the beginning of July. He earned his B.S. in astronomy from Caltech in 2001, and his Ph.D. in optical sciences from Arizona in 2007. He specializes in creating adaptive optics systems, which compensate for turbulence in Earth's atmosphere that normally blurs light from celestial bodies, and is particularly interested in using these systems to study exoplanets and their environments. As a postdoctoral researcher at Caltech, Baranec led an international team that created the world's first fully automated laser adaptive optics system called Robo-AO which is now being used to take high-resolution images of all the candidate exoplanet host stars identified by NASA's Kepler mission. He previously helped create Palomar Observatory's PALM-3000 adaptive optics system, the first of the purpose built extreme adaptive optics systems, which allow astronomers to peer ever closer to the area around nearby stars to find planets hiding.



**Daniel Berke**  
**Joint Astronomy Centre**  
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**Daniel Berke** earned his Bachelor's degrees in Physics and Astronomy at UH Hilo in December 2011 after moving to Hawaii from California. He quickly fell in love with the climate and after graduating spent a year working at the Mauna Kea Visitor Information Station before finding a job at the Joint Astronomy Centre. There he keeps an eye on the output of the James Clark Maxwell Telescope, watching to make sure everything is running as it should be. Apart from his main loves of physics and astronomy he enjoys reading anything he can get his hands on, hiking, playing computer games, powerbocking, classical music, spelunking, and singing in choir. In the future Daniel plans to go on to graduate school to obtain a Ph.D. in theoretical physics.



**Jennie Berghuis**  
Subaru Telescope  
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**Jennie Berghuis** is an Assistant Telescope Operator for Subaru Telescope. She did her education at the University of Hawai'i at Hilo, graduating with a B.S. in Astronomy in 2007. She gained experience through locally offered internships including studying and reducing asteroid research data collected at NASA's Infrared Telescope Facility (IRTF), working as a Night Attendant for IRTF, assisting in the fabrication, assembly, and organization of Subaru's HiCIAO instrument project, and building a remotely-controlled telescope dome currently in operation on Mauna Loa. She enjoys adventure, backcountry hiking, skydiving, surfing, paddling, snowboarding, movies, playing music, and most importantly: looking up!



**Dan Birchall**  
Subaru Telescope  
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**Dan Birchall** is an Operator at the Subaru Telescope. He came to Mauna Kea in 2004 as a volunteer and operator at the UH 2.2-meter, with a background in computing. He also worked as an aircraft spotter for the Keck and Gemini observatories, then joined Subaru in 2009 while completing a Graduate Certificate of Science in Astronomy. In his spare time, Dan volunteers at the Visitor Information Station, studies supernovae and sustainable development, and helps his toddler learn the planets.



**Kevin Caruso**  
Morey Corp  
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**Kevin Caruso** is an electrical engineer, private pilot, and space author. He also sells control panels and keypads for electronic equipment. Kevin received his BSEE from the University of Illinois, and did graduate work in patent law at the Illinois Institute of Technology. In 1991, Kevin created a Young Pilot Program for 11-16 year old students who were eager to learn about flying. He has been sharing his passion for space exploration with students and teachers since 1994. At that time, NASA's field center in Cleveland Ohio selected him to share space science and Apollo Moon rocks with schools across Illinois. He was selected in 1999 to serve as a NASA JPL Solar System Ambassador in Illinois and has been a guest presenter at Space Center Houston's Educator Conference for 5 consecutive years. After four years of research, his middle school book entitled "Back To The Moon" was published in 2001. Kevin enjoys sharing his passion for space with students, educators, and parents. He lives in Illinois and is the proud father of 2 wonderful teenage children.



**Andre-Nicholas Chene**

Gemini Observatory

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



**Hsin-Fang Chiang**

UH Institute for Astronomy

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**Hsin-Fang Chiang** is a postdoc at the Institute for Astronomy and NASA Astrobiology Institute at the University of Hawaii at Manoa. She received her Ph.D. from the University of Illinois at Urbana-Champaign in 2011, with a thesis about observations and modeling of protostars.



**Mark Chun**

UH Institute for Astronomy

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**Mark Chun** is an astronomer working at the University of Hawaii's Institute for Astronomy. His research interests include astronomical instrumentation in the area of adaptive optics and atmospheric optical turbulence.



**Ann Marie Cody**

**Caltech**

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**Ann Marie Cody** is a postdoctoral scholar at Caltech, working with the Young Stellar Object Variability group at Spitzer/IPAC on the Coordinated Synoptic Investigation of NGC 2264. These projects seek to understand the diversity of variability behavior in young stars, its mechanisms, and connections to circumstellar disks. Her research involves high-precision optical and infrared photometry of young stars and brown dwarfs using ground and space-based telescopes. Ann Marie enjoys visiting observatories from Hawaii to Chile while carrying out her work.



**Kathy Cooksey**

**UHH Physics & Astronomy**

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**Kathy Cooksey** studies the cosmic web at high and low redshift, by using background quasars to probe the foreground gaseous structure in absorption. She works to characterize the cosmic enrichment cycle through the signatures etched into the processed gas and reflected in its metallicity, elemental abundances, density and/or spatial distribution. Whenever possible, Kathy plays soccer. Failing that, she likes running and hiking. On the more sedentary side, she crochets and watches anime.



**Sandra Dawson**

**Thirty Meter Telescope Project**

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**Sandra Dawson** is Manager, Hawai'i Community Relations, for the proposed Thirty Meter Telescope Project. Dawson has a Bachelor of Arts degree in Political Science and a Master's Degree in International Studies from Claremont Graduate University. For 20 years as an employee of the California Institute of Technology (Caltech) she worked at Caltech's Jet Propulsion Laboratory on some of JPL's largest projects for NASA, including the Galileo, Cassini and Mars missions, and received numerous group and individual awards. She retired from Caltech in December and is now on the staff of the TMT Observatory Corporation. She lives in Hilo with her husband Dwayne.



**Brian Day**  
NASA Lunar Science Institute  
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**Brian Day** is a NASA contractor at Ames Research Center. His duties there have included serving as Education and Public Outreach Lead for NASA's LCROSS lunar impactor mission and for the upcoming Lunar Atmosphere and Dust Environment Explorer mission. His hobbies and professional life focus on astronomy. For 16 years, he was chairman of the Foothill College Observatory. Brian and his wife Pam are avid solar eclipse chasers, having traveled around the world to see eight total, five annular, and numerous partial eclipses from such exotic locations as the wilds of Africa, the heights of the Andes, the jungles of Central America, the Australian Outback, the frozen wastes of Northern Mongolia, the base of the Great Wall of China, and the beer gardens of Germany.



**Jessica Delgado**  
University of Hawaii – Manoa  
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**Jessica Delgado** grew up in Monterey, CA, attended San Francisco State for her undergrad degree in math. While she was there she also played collegiate softball. Jessica stayed at SFSU and earned her Master's this past spring. She now attend UH as a PhD student studying number theory.



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



**Ryan Felix**  
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**Ryan Felix** a graduate student at UH Manoa and is a Super-M fellow, with Lanai High and Elementary School, researching mathematics and mathematics education. SUPER-M is a project at the Department of Mathematics of the University of Hawai'i at Manoa funded by a National Science Foundation, Graduate STEM Fellows in K–12 Education (GK-12) program. As part of this program he works with K-12 teachers to design innovative, developmentally appropriate, and engaging activities for K-12 students to enhance STEM skills.



**Scott Fisher**  
University of Oregon  
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**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 Hawai'i in 1996. In addition to his love of astronomy, Scott is an amateur photographer and a Geocacher.



**Suzanne Frayser**  
Subaru Telescope  
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**Suzanne G. Frayser** is Subaru Telescope's English Press Officer in the Office of Public Information and Outreach. She earned her B.A. in sociology and anthropology at the College of William and Mary and her Ph.D. in anthropology from Cornell University. She is a member of Phi Beta Kappa and received a Professional Associate Award from the Cultural Learning Institute of the East-West Center at the University of Hawai'i. She has served as a college professor (SUNY Potsdam and Colorado College); the founder and principal researcher of a research and consulting firm (Cultural Insights); and an officer in several professional organizations. She is the author of several scholarly books and many articles. Her main areas of interest are applied anthropology, cross-cultural research and communication, and effective presentation of science to the public.



**Gary Fujihara**  
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**Gary Fujihara** was born in Honolulu, and a resident of Hilo since 1980, with a background in graphic arts, music and computer software engineering. Gary heads the Office of Science Education and Public Outreach at UH Institute for Astronomy. While he was a telescope operator at Subaru in 2002, Gary founded **Astro Day**, a nationally recognized and award-winning annual event that attracts over 15,000 people every year in Hilo. Gary has been a NASA Jet Propulsion Laboratory Solar system Ambassador since 2004, and is a member of the Astronomical Society of the Pacific, the Astronomical League and the International Dark Sky Association.





**Roy Gal**

**UH Institute for Astronomy**

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**Roy Gal** received his B.A. in Astrophysics from Columbia University in 1994, and his Ph.D. in Astronomy from Caltech in 2001, detecting and studying galaxy clusters from the 2nd Palomar Sky Survey. He then worked on the Sloan Digital Sky Survey at Johns Hopkins University, followed by three years at U.C. Davis, studying galaxy evolution in clusters that formed when the Universe was half its present age. He has been a faculty member at UH Manoa's Institute for Astronomy (IfA) for eight years, continuing to study the evolution of galaxies. He oversees all of the IfA's outreach programs and media relations, teaches astronomy classes, and heads the UH National Gemini Office and the Friends of the Institute for Astronomy.



**Tom Geballe**

**Gemini Observatory**

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**Tom Geballe** obtained a Ph.D. in physics in 1974 under Prof. Charles Townes at U.C. Berkeley. Following postdoctoral fellowships at Berkeley, Leiden, and a Carnegie Fellowship at Hale Observatories in Pasadena, he became a staff astronomer at the United Kingdom Infrared Telescope (UKIRT) in 1981. He was Astronomer-in-charge, Associate Director, and Head of Operations at UKIRT from 1987 until 1998. Among his research interests are the galactic center, the physics of quiescent and shocked molecular clouds, the late stages of stellar evolution, the composition of interstellar dust, the surfaces, atmospheres, and aurorae of planets and moons, and brown dwarfs. Recent significant papers include spectroscopy/classification of brown dwarfs, detection of H3+ in both dark and diffuse interstellar clouds, and infrared evolution of erupting stars V838 Monocerotis and Sakurai's Object.



**Jeff Goldstein**

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Space Science Education**

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



**Bryan Gorges**

Joint Astronomy Centre

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Coming from the high plains of Cheyenne, Wyoming, **Bryan Gorges** moved to Hilo to work for the Joint Astronomy Centre in 2008. With a degree in Computer Engineering from the University of Wyoming, Bryan is interested in software, robotics, and artificial intelligence. Most of the work he does for the JAC is control software and user interfaces for both of the telescopes with other duties, including a short stint operating UKIRT and volunteering to run extended observing for JCMT. Bryan enjoys Fencing, Archery, Hiking, and Birdwatching outside of work. He also loves thinking about how to solve problems that might include robotic solutions, maybe he will get to try some of these ideas someday.



**Kevin Grazier**

**Kevin R. Grazier**, Ph.D. is the Science Advisor for the SyFy Channel series "Defiance," and the film "Gravity." He performed the same role on the Peabody Award winning "Battlestar Galactica", as well "Eureka", "Falling Skies", "The Zula Patrol", and many other series. He produced the award-winning short "D.N.E.: Do Not Erase," with several other projects currently in development, including science documentaries, and the science fiction web series "Stasys." Grazier co-authored the book "The Science of Battlestar Galactica", and is an editor and contributing author for the American Chemical Society anthology "Hollywood Chemistry: When Science Met Entertainment" (2013). Currently writing "Hollyweird Science" (Springer) with Stephen Cass, and the novel "The Once and Future War" with Ges Seger. For 15 years he was a research scientist and science planning engineer at NASA's Jet Propulsion Laboratory on the Cassini/Huygens Mission. He was the Investigation Scientist for the Imaging Science Subsystem, and wrote mission planning and analysis software that won both JPL- and NASA-wide awards (saving Cassini an estimated \$250,000). Still an active researcher, his research includes numerical method development, and long-term large-scale simulations of Solar System dynamics, evolution, and chaos. Dr. Grazier is also active in bringing the wonders of science and space to the public. For 15 years he was one of the most sought-after speakers at JPL, and has appeared on several episodes of History Channel's "The Universe," Science Channel's "Alien Encounters," and Nat Geo's "Naked Science." He teaches classes in basic astronomy, planetary science, cosmology, the search for extraterrestrial life, and the science of science fiction at UCLA and SMC. Grazier also regularly serves on NASA educational product review panels.



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



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



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



**Isabel Hawkins**  
**Exploratorium**

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**Isabel Hawkins, Ph.D.**, is a bilingual and bicultural native of Córdoba, Argentina. Dr. Hawkins received her Ph.D. in astrophysics at the University of California, Los Angeles, in 1986. She worked for 20 years at the University of California at Berkeley as a Senior Fellow on several NASA satellite projects, and as the Director of Science Education at the Space Sciences Laboratory. Currently, she is Astronomer & Project Director at the San Francisco Exploratorium, and Faculty of the Indigenous Education Institute, Friday Harbor, WA. In 2005, she hosted a live webcast from Chichén Itzá, Yucatán, México, during the March Equinox, and was executive producer of the award winning book for the general public, and website, titled *Traditions of the Sun*, on the astronomy at Chaco Culture National Historical Park in New Mexico and at several Maya archaeological sites in the Yucatán. In 2011, Dr. Hawkins produced the bilingual (English and Hawaiian) Webby-award winning website *Never Lost: Polynesian Navigation* at the Exploratorium, which features the astronomical foundations of Native Hawaiian navigation. She worked with Maya curators to develop the website “*Living Maya Time – Viviendo el tiempo maya*” website for the Smithsonian National Museum of the American Indian. Her work focuses on broadening access to science and enhancing participation by all communities through the appreciation of the cultural roots of science. Dr. Hawkins received eight NASA awards between 2004 and 2008 for her work on NASA education and public outreach. In 2009, the Astronomical Society of the Pacific awarded Dr. Hawkins the prestigious Klumpke-Roberts Award in recognition of her outstanding contributions to the public understanding and appreciation of astronomy.



**Saeko Hayashi**  
**Subaru Telescope**

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**Saeko S. Hayashi** grew up in Tohoku, a northeastern region of Japan, where she spent part of her childhood in Fukushima. After graduating from a local high school, she boldly went on to attend Tokyo University as one of the few women undergraduates (1% in STEM majors); she continued there and became the first woman to enroll as a full-time student in the Ph.D. astronomy program. 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 was a staff member of the 7.5-m Japan National Large Telescope (JNLT) project, which began at the National Astronomical Observatory of Japan in 1990, and later became known as the Subaru Telescope. She has performed a variety of roles at Subaru from fixing mirrors and 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. Saeko is also an active member of the **Rotary Club of Hilo**. She says, “Subaru Telescope, where people from all over the world come together and work with each other, is a great place to work. The challenges of working at the Mauna Kea summit and the satisfaction of community life in Hilo enrich family life”.



**Kris Helminiak**  
Subaru Telescope  
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With probably the most unpronounceable name in Hilo, **Krzysztof** prefers to be called "Kris". Studied and graduated in Torun, Poland, the birthplace of Nicolaus Copernicus. After the PhD, Kris moved for three years to Chile to work as a post-doctoral researcher at the Pontifical Catholic University. While visiting Hawaii twice in the meantime, he fell in love with the Big Island and decided to take any opportunity to move here. Joined the Subaru Telescope in October 2013 to become a research fellow. He mainly works on eclipsing binary stars, looking for strange and unusual stellar pairs, studying their properties, and looking for planets around them. Involved in building a global network of robotic telescopes 'Solaris', dedicated to look for extrasolar planets around eclipsing pairs. As a member of the VISTA Variable in the Via lactea (VVV) project, he also uses eclipsing systems to map the Milky Way, especially its unreachable parts hidden behind the galactic center.

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



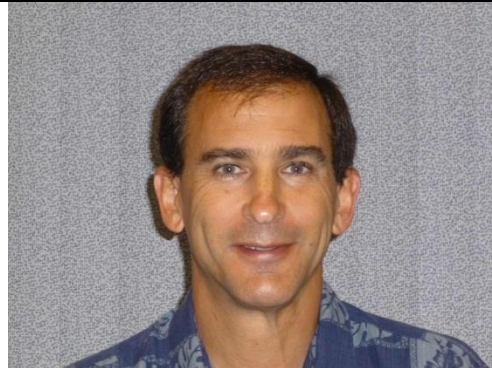
**Michael Hoenig**  
Gemini Observatory  
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**Michael Hoenig** is currently working as a Data Analysis Specialist at Gemini Observatory. He did his undergraduate degree in Astrophysics at the University of Sussex (England) in the mid-1990s, and then went on to do a Ph.D. at the University of Cambridge, which he completed in 2004. His thesis centered around 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. He is thrilled to be back in astronomy and back in Hawai'i. When he's not examining data from the telescope, he likes to go to the beach, read a good book or dance Argentine tango.



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



**Stewart Hunter**  
Mauna Kea Support Services  
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**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 Post Graduate 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.



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



**Ikuru Iwata**  
Subaru Telescope  
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**Ikuru Iwata** is the associate professor at Subaru Telescope, NAOJ. He moved to Hilo in 2010 to join the new development group of Subaru Telescope, which is working for commissioning of exciting new instruments and planning of the future instrumentation. He received his Ph. D. in 2003 based on the data taken with Subaru Telescope, and is continuing his exploration to understand how the galaxies in the Universe were born and evolved.



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



**Yuko Kakazu**  
Subaru Telescope  
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**Yuko Kakazu** recently joined the Subaru Telescope as an outreach specialist. A native Okinawan, she began her journey into astronomy when she attended NASA's U.S Space Camp program at age 13. She graduated from Tohoku University in Japan and then obtained her Ph.D. at the Institute for Astronomy, University of Hawai'i at Manoa in 2008. Since then, she has worked as a postdoctoral 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. 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 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.



**Rob Kelso**  
Pacific International Space Center  
for Exploration Systems (PISCES)  
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**Rob Kelso** has worked for NASA for 38 years at the Johnson Space Center in Houston, Texas. During the late 1980's and 90's, Rob served as a Shuttle Flight Director in NASA's famed Mission Control Center (MCC) while directing 25 Space Shuttle missions. His role as Flight Director is the same as Gene Kranz (*Failure is Not an Option*) in the movie "Apollo 13" starring Tom Hanks. During the missions, Rob often used the NASA and Air Force tracking/communications ground stations in Hawaii to monitor the Shuttle and communicate with the astronauts. He is currently the Executive Director of PISCES (Pacific International Space Center for Exploration Systems) in Hilo. PISCES is responsible for conducting robotic operations on the Big Island for testing planetary surface technologies before launch. He has a bachelor's degree in physics and an MBA in public management.



**Markus Kissler-Patig**  
Gemini Observatory

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**Markus Kissler-Patig** grew up in Switzerland and France before moving to Germany for his university studies. He obtained his PhD in astrophysics in 1997 from the University of Bonn and held post-doctoral positions at the University of California Santa Cruz and the European Southern Observatory (ESO) in Germany. He joined the latter as faculty in 2000 as instrument scientist for a series of instruments for ESO's Very Large Telescope. In 2008, he took up the position of project scientist for the 40m European Extremely Large Telescope. In August 2012, Markus Kissler-Patig joined the Gemini Observatory as director. He remains an adjunct professor at the Ludwig-Maximilians University in Munich where he has been teaching astrophysics and astrobiology since 2005.



**Scot Kleinman**  
Gemini Observatory

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**Scot** (there was a shortage of "t"s when he was born) **Kleinman** is an astronomer at Gemini North. He works as the Instrument Program Scientist, helping develop and bring 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. Scot 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. Scot also works with data from large astronomical surveys which are ushering in a new era of observational astronomy. When not working (when is that?), Scot likes surfing, live music, and maintaining/modifying his car.



**Bernhard Laurich**  
Hawai'i Community College

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**Bernhard Laurich** received his Ph.D. in Physics at the University of Stuttgart, Germany, where he studied the electronic properties of silicon. In 1986 he moved to the U.S. and spent 10 years at the Los Alamos National Laboratory doing research on layered inorganic and organic semiconductors and their structural, electric and electro-optic properties. In 1996 he followed his passion to create and foster interest in science, and since that time he has been teaching Physics, Chemistry and Astronomy at Hawai'i Community College. His most recent interests are astrobiology and sustainable energy systems.



**Michael Lemmen**  
Subaru Telescope

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**Mike Lemmen** is an Operator for Subaru Observatory since 2003. He has worked in the computer industry since 1990 in such varied roles as support, administration, and education. Originally from the suburbs of Detroit, he escaped in 1999 and has lived in the Hilo area ever since.





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



**R. Pierre Martin**  
UHH Physics & Astronomy  
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**Dr. R. Pierre Martin** is an Assistant Professor of Physics and Astronomy and the Director of the UH Hilo Hoku Ke'a Observatory on Mauna Kea. He earned his MS and PhD in astrophysics at Universite Laval in Quebec, Canada. He has held post-doctoral fellowship positions at Steward Observatory in Arizona, and with the European Southern Observatory New Technology Telescope in Chile. Between 1997 and 2008, Dr. Martin was a resident astronomer at the Canada-France-Hawaii Telescope on Mauna Kea, and its Director of Science Operations for six years. Prior to joining UH Hilo, he was the Executive Director of the WIYN 3.5m telescope on Kitt Peak (Arizona) and also a consultant for the Giant Magellan Telescope project. Dr. Martin fields of research include the chemical evolution of galaxies, massive star formation, galaxy morphology, planetary nebulae, astronomical instrumentation and the optimization of the observational process for professional observatories.



**Tony Matulonis**  
NASA IRTF  
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**Tony Matulonis** works at NASA Infrared Telescope Facility. 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, Observatory Night Attendant at the NASA IRTF, Telescope Operator at the UH 2.2-meter on Mauna Kea, System Support Associate at Gemini Observatory, he joined IRTF in 2013. His interests include adaptive optics and laser guide star systems.



**Callie McNew**

**James Clerk Maxwell Telescope**

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



**Peter Michaud**

**Gemini Observatory**

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



**Joseph Minafra**  
**NASA Ames Research Center**  
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At the NASA Ames Research Center, **Joseph Minafra** serves as Lead of Technical Systems for the NASA Solar System Exploration Research Virtual Institute (SSERVI) as well as the Sr. Lead Application Developer and Collaborative Technology Specialist for Lockheed Martin. Joe has an extremely diverse background that ranges from biology and art to web design and collaborative technology development. 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. Currently, his work is to oversee technology innovation in order to enable collaboration and communication between competitively selected science and research teams across not only the United States but internationally as well. Joe has a long history of integrating government work with commercial enterprises and bringing that message to the public through the education and public outreach sectors. He is excited to share his NASA experiences with the Journey through the Universe communities! Ad Astra!



**Brian Mitchell**  
**NASA Lunar Science Institute**  
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**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 educating the general public and inspiring/engaging students and educators on Discovery/New Frontiers/Lunar Quest Office missions, Agency science and exploration objectives, by using existing or creating new 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.



**Rita Morris**

**Subaru Telescope**

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**Rita Morris** is a telescope operator for Subaru telescope. She moved to the big island right after graduating from the University of Arizona in 2011 with a bachelor's degree in astronomy and physics, and a minor in planetary sciences. She spent her time there operating telescopes for Steward Observatory and working with several people on a variety of projects such as the testing of a pyramid wavefront sensor for use on the future GMT, observational studies of subdwarf B stars and transiting exoplanets, and a project involving photometry of Jupiter's moon Europa. When she's not looking through telescopes, you can usually find Rita playing sports of all kinds. If there was hockey on the big island, it's very likely she would be doing nothing but playing all day long.



**Janet Nathani**

**Mauna Kea Visitor Information Station**

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Originally from Pennsylvania, **Janet Nathani** started school at East Stroudsburg University, majoring in Biology. During her senior year, she decided to come to Hawai'i through the National Student Exchange program. Falling in love with the ocean and Mauna Kea, Janet found her new home on the Big Island, where she is now living permanently. Currently, Janet Nathani is an Interpretive Guide at Mauna Kea Visitor Information Station (VIS), where she provides safety information to visitors, conducts star gazing activities and summit tours. She is also the Universe Tonight coordinator at the VIS, which is a free public event that enables astronomers from different observatories to present their research to the public. Aside from work, Janet aims to obtain her biology degree in May 2013. In the future, Janet plans to attend a Natural Medicine School in Hawai'i, where she can learn the skills of Chinese medicine and preventive care. In her spare time, Janet enjoys stargazing on Mauna Kea, going surfing and living the Aloha lifestyle.



**Paul Nguyen**

**University of Hawaii at Manoa**

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**Paul Nguyen** is a Ph.D student at the University of Hawaii at Manoa. He does research on the computability of index sets of universal algebras.



**Nagayoshi Ohashi**  
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**Harriet Parsons**  
Joint Astronomy Centre  
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**Harriet Parsons** moved to Hilo in 2011 and is a Staff Astronomer for the James Clark Maxwell Telescope. This is her first job after completing her Ph.D. at the University of Hertfordshire in the United Kingdom. Her day-to-day job varies widely from assisting visiting astronomers both in terms of health and safety and in terms of quality of images, to working on data from the newest instrument on the JCMT: SCUBA-2. When she has time, her research focuses on cold dense clouds (made of gas and dust) within our own Milky Way galaxy looking at where massive stars may be forming. These stars are more than eight times the mass of our sun and end violently in supernovae; however the way they form is shrouded in mystery (well, OK, dust!). Using the JCMT astronomers can “see” through the dust helping to unlock the secrets of these clouds. Away from astronomy she enjoys paddling with Puna Canoe Club, learning Hula, snorkeling, and traveling. She also loves going to the diverse events available in Hilo, from Shakespeare in the Park to watching Paradise Roller Girls!



**Emily Peavy**  
UHH Physics & Astronomy  
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**Emily Peavy** is a planetarium student worker majoring in astronomy at the University of Hawaii at Hilo and is currently in her third year of the program. She has been working at 'Imiloa as Planetarium Operator since January of 2012. Emily also enjoys volunteering at the Mauna Kea Visitor Information Center, and has completed an internship through the Akamai Workforce Initiative working at the Institute for Astronomy. She can easily see herself going into the outreach and education side of astronomy, but is also intrigued by much of the research that is occurring in the field.



**Laura Peticolas**

**UC Berkeley**

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Laura Peticolas has loved science, abstract thinking, nature, music, art, math, school, and teaching for as long as she can remember. In 2000 at the University of Alaska, Fairbanks Laura fulfilled a long-time dream since 9th grade of getting a Ph.D. in physics. While in Alaska, she spent long nights on the computer, days learning physics and math and the intricate connection between the two, as well as time skijoring, fishing, and spending time with friends. In 2000, Laura was fortunate to get a post-doc position at the same place and time as my husband at the Space Sciences Laboratory at the University of California, Berkeley and worked for 3 years analyzing particle and fields data with optical images of aurora in order to understand better what makes the aurora (Northern and Southern Lights) look and act the way they do. She then transitioned to working more and more with the education group at the Space Sciences Laboratory: the Center for Science Education. In the many years since then, she has had years of professional development and intense learning experiences about how people learn and about best practices in science education pedagogy. She is the Director of a education group, called Multiverse. She is grateful to work with the Multiverse team to provide learning experiences around earth and space science and the multicultural universe. They collaborate with integrity with amazing partners in order to learn how best to facilitate learning science within the context of individual and community cultures, histories and backgrounds. It is an honor to learn with so many brilliant people from different cultures about ourselves, Earth, the night sky, and the Universe.



**Christopher Phillips**

**Imiloa Astronomy Center of Hawaii**

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**Christopher Phillips** is originally from the United Kingdom and is based at the 'Imiloa Astronomy Center of Hawai'i. He has been involved in science communication and education working in science centers and museums internationally. At 'Imiloa Astronomy Center he is part of the planetarium team responsible for producing full-dome content and has worked on numerous full-dome productions including the Awesome Light series. Christopher also works internationally as an independent consultant and researcher on projects as diverse as museum programming, exhibit design, science communication training, international development and education. Most recently Christopher has served as scientific consultant for the construction of new radio telescope at Kazan University in the Russian Federation and science park facilities at Goonhilly satellite base station in the United Kingdom. Christopher is also a regular contributor to Guru Magazine, a brand new online popular science publication. He is also an active member of Astronomers without Borders and he founded the 'Reach for the Stars - Afghanistan' program – an effort to bring science education to children of conflict zones and the developing world.



**Tae-Soo Pyo**  
**Subaru Telescope**  
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**Tae-Soo Pyo** is a Support Astronomer at the Subaru Telescope. His research focuses on star formation, especially, outflows from young stellar objects. He is actively involved the development of new infrared instruments which will facilitate this research. Tae-Soo Pyo did his undergraduate work in the Department of Astronomy at Seoul National University in 1992 and continued on to get his Master's degree in 1994. He then transferred to University of Tokyo. Pyo worked at the Subaru Telescope as a Jr. Astronomical Researcher from 2000 until he received his Ph.D in 2003. During this time, he participated in the final development and engineering observations for the Infra-Red Camera and Spectrograph (IRCS). After graduating, he continued at the Subaru Telescope as a Korea-Subaru Liaison Researcher for Multi-Wavelength Observational Study of Outflows Emanating from Young Stellar Objects. In 2005 he became a support astronomer for IRCS, the same instrument he helped develop as a Jr. Astronomical Researcher.



**Bo Reipurth**  
**UH Institute for Astronomy**  
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**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."



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



**Yuriko Saito**  
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**Yuriko Saito** is a graduate student at The Graduate University for Advanced Studies (SOKENDAI), and works at Subaru Telescope as a research intern. Her research focuses on the co-evolution between galaxies and supermassive black holes located in the center of galaxies in early universe. Her interest in Astronomy began when she was a high school student. Yuriko graduated from Tsukuba University with a bachelor's degree in Physics. After that, she entered SOKENDAI and have been studying Astronomy. It has been a year and a half since Yuriko came to Hilo.



**Sharon Schleigh**  
Purdue University  
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**Sharon Price Schleigh** has been an educator for over 20 years, teaching all ages from pre-school to university. She received her doctoral degree from Arizona State University and is currently an Assistant Professor at Purdue University. Her research interests include understanding how people think about and engage in science. This has led to research projects that have examined argumentation in a science classroom; authentic research in astronomy and problem-based curriculum designs; how students, teachers and scientists think about the nature of science; and how curriculum impacts content knowledge and attitudes about science. She has been involved projects such as the NASA Deep Impact Mission (Institute for Astronomy, Hawaii); Toward Other Planetary Systems (IFA/NSF); Ali'i Astrobiology Summer Workshops; and Teacher Leaders in Research-Based Science Education (NOAO, Kitt Peak). She has been on the education board for the Las Cumbres Observatories of Global Telescopes network (LCOGT), the Faulkes Telescopes, and GoScience. She is the current director of the Research Engaged Science Teacher Education Program to improve STEM (RESTEP to STEM), funded by NASA and the NC Space Grant to promote astronomy/science education with pre-service teachers. She has served as a Regional Science & Engineering Fair Director, a Regional Science Olympiad Director, a trainer and presenter of the ECU Portable Planetarium program, an AAPT State Representative (HI), as the Mentor Coordinator for the Near East School Alliance Virtual Science Fair.





**Doug Simons**

**Canada-France-Hawaii Telescope**

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



**Garima Singh**

**Subaru Telescope**

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**Garima Singh** is a 4th year graduate student from Observatoire de Paris pursuing her research in collaboration with Subaru Telescope. Astronomy childhood lover, Indian by Nationality and highly motivated to contribute her life for the search of an Exo-Earth. Garima works on Subaru Coronagraphic Extreme Adaptive Optics system (SCEXAO) which aims for high contrast imaging of the exoplanets around bright stars. Garima received her Bachelor's of Technology in 'Computer Science' in 2008 from India. Her dream to study the heavenly bodies then led her to France where she have completed her Masters of Engineering in "Astronomical & Space-based System Engineering' at Observatoire de Paris in 2010. Astronomy is her passion and searching another world out there is her dream. Garima currently works in the development of the high performance coronagraphic low order wavefront sensor which will help ground-based telescopes and eventually in near future, the space-based telescopes to directly image the reflected light habitable planets.

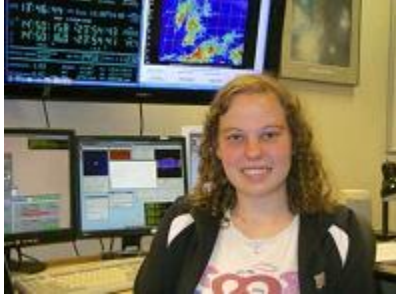


**Evan Sinukoff**

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



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



**Gordon Squires**  
Thirty Meter Telescope Project  
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**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.



**Marianne Takamiya**  
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**Marianne Takamiya** comes from Chile where she obtained her B.Sc. in Physics. She earned her Ph.D. in Astronomy and Astrophysics from The University of Chicago and came to Hilo in 1998 as one of the first Gemini Science Fellows. She is a mother of two children and wife of an astronomer. She is currently an Assistant Professor in the Department of Physics and Astronomy at the University of Hawai'i at Hilo where she teaches physics and astronomy courses and studies the evolution of galaxies and star formation in galaxies near and far.



**Ichi Tanaka**  
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**Ichi Tanaka** is a Japanese astronomer working at Subaru Telescope. He is from Niigata Prefecture, Japan. Ichi got his PhD of Astronomy at Tohoku University in 2000. After some PostDoc careers in Japan, he moved to Hawaii in 2005 as a support astronomer of MOIRCS (a near-infrared camera and multi-object spectrograph). His current title is the Senior Resident Astronomer. Ichi's scientific interest is in the formation and evolution of galaxies. Especially, he is currently working on how galaxies grow in the forming clusters of galaxies in young universe. In Hawaii Ichi lives with his wife and 3 kids. He enjoys classic piano music, watching Hawaiian birds, night skies, and geological scenes.



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**Raja (Puragra) GuhaThakurta** received a bachelor's degree in Physics at Saint Xavier's College in Kolkata, India and a Ph.D. in Astrophysical Sciences at Princeton University in 1989. He was a postdoctoral researcher at the Institute for Advanced Study, Princeton, NJ and at Princeton University. He worked briefly at NASA's Space Telescope Science Institute in Baltimore, MD (operational headquarters of the Hubble Space Telescope), before joining the faculty of the University of California Santa Cruz in 1994 where he is currently a professor of Astronomy and Astrophysics. The primary focus of GuhaThakurta's research is the formation and evolution of galaxies, including the Andromeda galaxy. He has authored/coauthored 400+ journal articles and meeting abstracts, and has given dozens of lectures, both non-technical and technical. He received an Alfred P. Sloan Fellowship in 1997 and the Herzberg Memorial Prize and Fellowship in 2001. He is deeply committed to the education of young people. In 2009, he started the Science Internship Program at UCSC for high-school students.



**Shelly Valdez**

**Native Pathways**

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**Shelly Valdez** is a member of the Pueblo of Laguna Tribe, located in central New Mexico, and Hispanic descent. Shelly's educational background includes a Bachelor of Arts degree in Elementary Education, Master of Arts in Bilingual Education, and Ph.D. in Multicultural Teacher Education focusing on research in the area of Science Education. Shelly has worked in the area of education for 29+ years and currently owns & manages an educational consulting business, Native Pathways, (NaPs), located in central New Mexico. An important component of NaPs focuses is in the area of world views in science education, primarily focusing on indigenous science. Shelly's interest and passion of indigenous science has influenced her approaches in the field of education, evaluation and partnerships she works with. As part of her work, she is honored to be invited to join various educational boards, committees and supports educational programs at local, state and national levels. Her greatest moments in life are spending time with her son, Shpeyiah (Kyle) Swimmer, who is attending the Northern Arizona University. Shelly's vision for the future is to continue to be an active participant and an advocate for influencing Worldviews in evaluation and educational opportunities for indigenous people.



**Josh Williams**

**Subaru Observatory**

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



**Kohei Yamazaki**

**Subaru Observatory**

**Contact:**

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**Kohei Yamazaki** is an AO Technical Assistant for Subaru telescope. He works for SubaruTelescope since 2010 during college. Kohei studied at the University Hawaii at Hilo, graduating with a B.A. in Natural Science, Minor Biology and Liberal Arts in Spring 2013. He also worked at Onizuka Visitor Information Station on Mauna Kea as an interpretive star gazing guide. Kohei loves basketball and long distance running. Big Sean, Neyo and Wiz Khalifa are his favorite music artists. His favorite food is "2choices Poke bawl".



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



**Robert Young**  
University of Hawai'i at Manoa  
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**Robert Young** is a graduate student at UH Manoa studying mathematics. His research is in computational neuroscience and modeling the evolution of the nervous system. Robert is also a SUPER-M fellow with Ke Kula Kaiapuni 'O Ānuenuē, a Hawaiian language immersion school on Oahu.