# Keck Visiting Scholars 2018

Dr. Emily Martin recently completed her Ph.D. in Astronomy at University of California at Los Angeles (UCLA), where she studied low mass stars and brown dwarfs. She received a Master in Astronomy at UCLA in 2014 and a Bachelor in Physics at Texas A&M in 2012. She is now an NSF fellow at UC Santa Cruz.

Emily worked with Keck Observatory Support Astronomer Greg Doppmann on upgrades to the *Near InfraRed echelle SPECtrograph* (NIRSPEC) instrument. She was the Instrument Scientist for the upgrade and lead the full characterization of the NIRSPEC's Slit-viewing CAMera (SCAM, an instrument she designed), including measuring sensitivities on sky, wavelength solutions, and instrument stability. Her impressive work delivered sharper views of Comet Wirtanen in its closest approach to Earth and was featured in the press (http://www.keckobservatory.org/nirspec_comet/).

Dr. Gaël Noirot was a Caltech postdoc at the Jet Propulsion Laboratory when visited Keck. He had recently completed a Doctoral Degree from Paris Observatory in France, with one-year at European Southern Observatories, Germany and one-year at JPL/Caltech. He is currently a postdoc at Saint Mary's University, Canada.

Gaël worked with Keck Observatory Support Astronomer Alessandro Rettura. They mined the entire *Spitzer* and *WISE* space telescopes archive to assemble the ultimate catalog of distant infrared-selected galaxy clusters at z>1.3. Therein he studied the properties of Active Galactic Nuclei. This legacy catalog will identify hundreds of new interesting targets for spectroscopic follow-ups with the Keck Observatory *Multi-Object Spectrometer For Infra-Red Exploration* (MOSFIRE) Instrument.
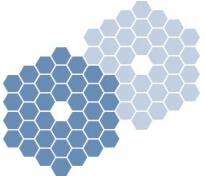
Geoff Chen is a graduate student in Astronomy at the University of California at Davis, where he started in 2015. He previously completed both a Bachelor and a Master in Physics at the National Taiwan University in Taipei, Taiwan, before moving to California.

Geoff worked with Keck Observatory Support Astronomers Jim Lyke and Sherry Yeh to develop a new sub-pixel drizzling method in the Keck Observatory *OH-Supressing Infrared Imaging Spectrograph* (OSIRIS) Instrument data reduction pipeline.

Ariel Graykowski completed a Bachelor in Physics at University of California at Davis, before moving to Los Angeles, California. At the University of California Los Angeles she received a Master in Geophysics and Space Physics and is now completing their Ph.d program.

Ariel worked with Keck Observatory Support Astronomer Percy Gomez. She performed various improvements of the *Near-Infrared Echellette Spectrometer* (NIRES) Instrument data reduction pipeline, developed scripts for instrument performance as well as wrote software for non-sidereal observing planning.

Farzaneh Zohrabi is a second-year Master's student in Physics at Mississippi State University, interested in observational astronomy, astronomical instruments, adaptive optics science and high contrast direct imaging of exoplanets.

Farzaneh worked with Sam Ragland, Keck Observatory Adaptive Optics Scientists, on probing immediate surroundings of habitable exoplanet hosts. The science targets for this project were originally extracted from the Kepler discoveries catalog and are being researched using the Keck Observatory *Second Generation Near Infrared Camera* (NIRC2) Instrument to better characterize planets in the habitable zone.
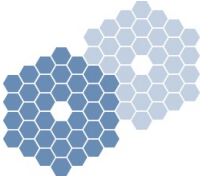
Thomas Lai is completing his Ph.D. in Astronomy at the University of Toledo, Ohio. He received a Bachelor in Space Sciences at National Central University, Taiwan in 2011 and was awarded the *Doreen and Lyman Spitzer Graduate Fellowship* in Astrophysics in 2014.

Thomas worked with Keck Observatory Support Astronomer Carlos Alvarez on a data analysis and instrumentation project related to the monitoring of the DEIMOS spectrograph throughput.

Chris Curtin is completing his Ph.D. in Astronomy at Swinburne University in Melbourne, Australia, where he studies distant super luminous supernovae. He received a Bachelor Degree in Mathematics at Stony Brook in 2006 and a Master in Astronomy at San Diego State in 2014.

He worked with Keck Observatory Support Astronomer Luca Rizzi on a data reduction project aimed at improving the *Keck Cosmic Web Imager* (KCWI) Instrument python pipeline.

Ian McConachie is completing his Ph.D. in Astronomy at University of California, Riverside, where he studies the evolution of cluster galaxies. He previously received a Bachelor in Physics at the University of California at Davis in 2016.

He worked with Keck Observatory Support Astronomer Percy Gomez on a science project aimed at studying distant brightest clusters of galaxies with NIRES and MOSFIRE out to z~3.