

Andrew Skemer

Positions Held

2023 - Professor, University of California, Santa Cruz
2019 - 2023 Associate Professor, University of California, Santa Cruz
2016 - 2019 Assistant Professor, University of California, Santa Cruz
2014 - 2015 NASA Hubble Fellow, University of Arizona
2011 - 2014 Instrument Scientist, Large Binocular Telescope Interferometer, University of Arizona

Education

2011 Ph.D., Astronomy, University of Arizona
2008 M.S., Astronomy, University of Arizona
2006 B.A., Astrophysics, Swarthmore College

Awards and Fellowships

2022 Outstanding Mentorship of Undergraduate Students, UCSC
2020 NASA Group Achievement Award
2020 Scialog Fellowship in Astrobiology
2018 Outstanding Mentorship of Undergraduate Students, UCSC
2018 Beatrice M. Tinsley Scholar, University of Texas, Austin
2016 Alfred P. Sloan Fellowship in Physics
2014 NASA Hubble Postdoctoral Fellowship
2008 NASA Graduate Student Research Program Fellowship
2008 Arizona Technology Research Initiative for Optics/Imaging Fellowship

Current Research Projects

Imaging Exoplanets with the *James Webb Space Telescope*—I am the US Principal Investigator of NASA's Early Release Science program to image exoplanets around other stars with the brand-new *James Webb Space Telescope*. Members of my team at UC Santa Cruz led the publication of the first two science papers from this program, which have been featured by CNN, NASA.gov, *Scientific American*, *Forbes*, *Time*, and many others.

Development of Novel Instrumentation for Imaging Exoplanets—I am the Principal Investigator of SCALES, a new instrument, under development for Keck Observatory (the largest telescopes in the world). SCALES will be capable of obtaining spectra of colder and lower-mass planets than has previously been possible. The instrument includes a novel set of micro-optics that can image exoplanets at up to 2000 wavelengths simultaneously. This will allow detailed studies of planetary-scale processes on objects that don't have analogs in our own Solar System, including studies of hydrological cycles on gas-giant exoplanets, as mentioned above.

Advising

Postdoctoral Fellows—Jordan Stone, Henriette Schwarz, Stephanie Sallum, Deno Stelter, Emily Martin, Aarynn Carter, Melodie Kao, ZJ Zhang

Graduate Students—Brittany Miles, Zackery Briesemeister, Erica Gonzales, Evan Morris, Isabel Kain, Mikayla Wilson

Undergraduate Students—Cassandra Henderson, Pengpei Zhu, Judah Luberto, Jialin Li, Michael Gonzales, Alina Aguilar, Aditi Gangadharan, Klaus Stephenson