

Education

- starting 2023 **Ph.D. Astronomy**, *University of Hawai'i at Mānoa*, Honolulu, HI
2020–2022 **M.S. in Earth and Planetary Sciences**, *University of Hawai'i at Mānoa*, Honolulu, HI, 3.88/4.0
2016 – 2020 **B.A. in Astronomy and Cognitive Science**, *Vassar College*, Poughkeepsie, NY, 3.52/4.0
Minor in Chemistry, Departmental Honors in Astronomy

Research

- Interests Low Mass Stars, Planet Formation and Evolution, Planetary Atmospheres
- Aug 2020 - Present **Dr. Eric Gaidos**, *Master's Thesis: Relating Multiplicity and Rotational Evolution among Young M Dwarf Stars in the Beta Pictoris Moving Group*, Honolulu, HI
- Obtaining, reducing, and analyzing IR data from Maunakea Observatories and other sources to study the rotation and activity of young M dwarf stars and the implications for the evolution of their planets; observational campaign to detect and measure the stellar masses of companions in binary systems.
- Aug 2020 - Present **Dr. Peter Plavchan**, *TOI Follow-Up Program*, Fairfax, VA
- Collaborator and observer for IR spectroscopic follow-up of TESS Objects of Interest, detecting and characterizing exoplanets around M Dwarf stars by radial velocity analysis.
- Aug 2021 - Present **Dr. Sonal Jain**, *MAVEN IUVS Science Team*, Boulder, CO
- Research Affiliate of the Mars Atmosphere and Volatile Evolution (MAVEN) Imaging UltraViolet Spectrograph (IUVS) Science Team at the Laboratory for Atmospheric and Space Physics; analyzing data from previous laboratory work with Dr. Joseph Ajello and preparing manuscripts for publication.
- Aug 2019 - Aug 2020 **Dr. Joseph Ajello**, *Laboratory Study of Planetary UV Emissions*, Boulder, CO
- Analyzed laboratory UV emission spectra for application in planetary aeronomical modeling; laboratory operation; prepared manuscript for publication; data reduction, analysis, and quality assurance.
- May 2019 - August 2019 **Dr. Joseph Ajello & Dr. Charles Malone**, *NSF Research Experience for Undergraduates*, Boulder, CO
- Operated and optimized laboratory vacuum chamber equipment, electron gun, and flight spare spectrographs (MAVEN IUVS, GOLD) to obtain electron impact-induced fluorescence spectra from common planetary gases; developed data reduction and visualization routines.

Programming Skills

- Proficient Python | IDL | LaTeX | Bash
- Novice MATLAB | R | C

Awards, Scholarships, and Fellowships

- Graduate NExSci Sagan Summer Workshop Travel Support Jul 2022
- National Science Foundation Graduate Research Fellowship Apr 2022
- Fred Mason Bullard Fellowship, UH Mānoa Aug 2020
- Undergraduate Austin Endowed Student Travel Grant, American Geophysical Union Dec 2019
- Internship Grant Fund, Vassar College Nov 2019
- Grace Hopper Celebration Research Scholarship, Computing Research Association Oct 2019
- REU Student Conference Travel Award, Boulder Solar Alliance Aug 2019

Volunteering and Outreach

- Graduate Mentor, HI-STAR (Hawai'i Student/Teacher Astronomy Research) Summer Camp 2021, 2022
- Volunteer, outreach events, UH Mānoa Institute for Astronomy Outreach 2021 - present
- Alumna and Volunteer, QuestBridge Scholars Aug 2016 - Present
- Undergraduate Organizer, Night at the Observatory Events, Vassar College Aug 2019 - Feb 2020
- Research and Coding Intern, Vassar Brothers Medical Center: The Heart Center Aug 2018 - May 2019
- Middle School and College Prep Tutor, Vassar College Urban Education Initiative Aug 2016 - May 2018

Teaching

- Undergraduate Academic Intern (all-course Teaching Assistant), Astronomy Department Aug 2019 – May 2020

Academic Intern (all-course Teaching Assistant), Cognitive Science Department	Jan 2020 – May 2020
Laboratory Teaching Assistant, Chemistry Department	Aug 2018 – Dec 2019
Laboratory Teaching Assistant, Physics Department	Aug 2018 – May 2019

Academic Service

Graduate	Earth & Planetary Sciences Representative, Graduate Student Organization	May 2022 - present
	Graduate Student Representative, Justice, Equity, Diversity, and Inclusion Committee	Aug 2021 - Present

Awarded Observing Proposals

PI	Hidden Binaries in the Beta Pictoris Moving Group, NASA IRTF 18 hrs	2022A
	Hidden Binaries in the Beta Pictoris Moving Group, NASA IRTF 21 hrs	2021B
	Hidden Binaries in the Beta Pictoris Moving Group, Subaru Telescope 12 hrs	2021B
Co-I	Transit Spectroscopy of a Nearby Young Exo-Neptune, NASA IRTF 6.5 hrs	2022A
	Transit Spectroscopy of a Nearby Super-Earth, Subaru Telescope 6.5 hrs	2022A
	Sleuthing the magnetic field, rotation, and age of a nearby M dwarf star, NASA IRTF 10.75 hrs	2022A
	Transit Spectroscopy of a Planet around a Nearby Bright Young Star, NASA IRTF 7.5 hrs	2021B
	Hidden Binaries in the Beta Pictoris Moving Group, NASA IRTF 21 hrs	2021A
Collaborator	Rotation and Multiplicity of Hyades M Dwarf Stars, W.M. Keck Observatories 24 hrs	2021B
	TOI follow-up program, Plavchan Group, NASA IRTF ~30+ hrs	2020B-2021A

Presentations

Talks	Earth and Planetary Sciences Department Colloquium Talk	Nov 2021
	American Geophysical Union Fall Meeting	Dec 2019
Posters	NExSci Sagan Summer Workshop	Jul 2022
	American Geophysical Union Fall Meeting	Dec 2021
	NExSci Sagan Summer Workshop	Jul 2021
	American Geophysical Union Fall Meeting	Dec 2019

Publications

3 First Author	Lee, R. A. et al. "Revisiting the β Pictoris Moving Group with Gaia EDR3: Membership Probabilities and Age" 2022, ApJL. <i>in prep.</i> Lee, R. A. et al. "Laboratory Study of the Cameron Bands and UV Doublet in the Middle Ultraviolet 180–300 nm by Electron Impact upon CO ₂ " 2021, AAS Journals. <i>Accepted Pending Revision Apr 2022.</i> Lee, R. A. et al. "Laboratory Study of the Cameron Bands, the Fourth Positive Bands, and the First Negative Bands in the Middle Ultraviolet 180–300 nm by Electron Impact on CO" 2021, JGR: Planets, 126, 2020JE006602.
5 Contributing	El Mufti, M., + 95 authors, including Lee, R. A. "TOI 560 - Two Transiting planets Orbiting a K dwarf Validated with iSHELL, PFS and HIRES RVs" 2021, AAS Journals. <i>Accepted Pending Revision Apr 2022.</i> arXiv version Cale, B. + 54 authors, including Lee, R. A. "Diving Beneath the Sea of Stellar Activity: Chromatic Radial Velocities of the Young AU Mic Planetary System" 2021, AJ, 162, 295. Gaidos, E. + 23 authors, including Lee, R. A. "Zodiacal Exoplanets in Time (ZEIT) XII: A Directly-Imaged Planetary-Mass Companion to a Young Taurus M Dwarf Star" 2021, MNRAS, 512, 10.1093/mnras/stab3069. Ajello, J. M. + 10 authors, including Lee, R. A. "The UV spectrum of the Lyman-Birge-Hopfield band system of N ₂ induced by cascading from electron impact" 2020, JGR: Space Physics, 125, 2019JA027546. de Leeuw, J. + 18 authors, including Lee, R. A. "Similar event-related potentials to structural violations in music and language: A replication of Patel, Gibson, Ratner, Besson, & Holcomb (1998)" 2019, Metapsychology, 3, MP.2018.1481.

References available upon request.