

MILES D. LUCAS

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EMPLOYMENT HISTORY

University of Hawai'i at Mānoa

Research Assistant, *Advisor: Michael Bottom*

May 2020 - Present

Teaching Assistant, *Astr 300, Astr 300L, Astr 301, Astr 110L*

August 2019 - May 2020

National Radio Astronomy Observatory

REU Research Assistant, *Advisor: Kumar Golap*

May 2018 - August 2018

Iowa State University of Science and Technology

Undergraduate Research Assistant, *Advisors: Massimo Marengo, Matthew Wetstein*

January 2017 - July 2019

EDUCATION

University of Hawai'i at Mānoa

August 2019 - Present

Institute for Astronomy

M.S. Astronomy

December 2021

Iowa State University of Science and Technology

August 2015 - May 2019

College of Liberal Arts and Sciences

B.S. Physics (GPA 3.8/4.0)

Magna Cum Laude

Minor in Astronomy, Minor in Computer Science

May 2019

HONORS, AWARDS, AND ACHIEVEMENTS

George Orton and Mona Marie Elmore ARCS Award in Astronomy

Spring 2022

Department-wide award for outstanding research in science, technology, engineering, mathematics, or health

Jacquie Maly ARCS Scholar of the Year (Physical Sciences)

Spring 2022

Selected from 20 ARCS scholars university-wide for exceptional research in the physical sciences

Iowa Space Grant Undergraduate Research Fellow

Fall 2018-Spring 2019

State-wide award for outstanding STEM research that supports NASA's mission (Adv.: Massimo Marengo)

NSF Research Experience for Undergraduates (REU) Fellow

Summer 2018

Nation-wide undergraduate research fellowship for advancing NSF-aligned research (Adv.: Kumar Golap)

Iowa Space Grant Undergraduate Research Fellow

Fall 2017-Spring 2018

State-wide award for outstanding STEM research that supports NASA's mission (Adv.: Massimo Marengo)

College of Liberal Arts and Sciences Dean's List

Fall 2015, Fall 2016-Spring 2019

College-wide award for academic performance

TECHNICAL SKILLS

Programming Languages & Software

Python, Julia, C, C++, Git, GitHub, Excel

Instrument Design

Optomechanical (Solidworks, AutoCAD), Optical (Zemax, HCIPy)

Observing

Subaru (SCEXAO, HDS), Keck (NIRC2), IRTF (SpeX)

SELECTED PUBLICATIONS

- [1] M. Lucas et al. "A visible-light Lyot coronagraph for SCEXAO/VAMPIRES". In: *Ground-based and Airborne Instrumentation for Astronomy IX*. Vol. 12184. SPIE, 2022. DOI: 10.1117/12.2632269. arXiv: 2208.02380 [astro-ph.IM].
- [2] M. Lucas et al. "An Imaging Search for Post-main-sequence Planets of Sirius B". In: *AJ* 163.2, 81 (Feb. 2022), p. 81. DOI: 10.3847/1538-3881/ac4032. arXiv: 2112.05234 [astro-ph.EP].
- [3] C. M. Lisse et al. "HD 145263: Spectral Observations of Silica Debris Disk Formation via Extreme Space Weathering?" In: *ApJ* 894.2, 116 (May 2020), p. 116. DOI: 10.3847/1538-4357/ab7b80. arXiv: 2003.06870 [astro-ph.SR].
- [4] M. Lucas and M. Bottom. "ADI.jl: A Julia Package for High-Contrast Imaging". In: *JOSS* 5.56 (Nov. 2020), p. 2843. DOI: 10.21105/joss.02843.
- [5] T. L. Campante et al. "TESS Asteroseismology of the Known Red-giant Host Stars HD 212771 and HD 203949". In: *ApJ* 885.1, 31 (Nov. 2019), p. 31. DOI: 10.3847/1538-4357/ab44a8. arXiv: 1909.05961 [astro-ph.SR].
- [6] D. Huber et al. "A Hot Saturn Orbiting an Oscillating Late Subgiant Discovered by TESS". In: *AJ* 157.6, 245 (June 2019), p. 245. DOI: 10.3847/1538-3881/ab1488. arXiv: 1901.01643 [astro-ph.EP].