Alexa R. Anderson Last updated: May 2023

Contact

Institute for Astronomy

INFORMATION University of Hawai'i at Mānoa

2680 Woodlawn Drive,

Honolulu, Hawai'i, 96822, USA

Office B-101

EDUCATION

Institute for Astronomy, University of Hawai'i at Mānoa

2020 - Present

⊠ E-mail:alexaand@hawaii.edu

Honolulu, HI, USA

M.S. in Astronomy
Ph.D. in Astronomy
expected May 2026

Yale University 2016–2020

New Haven, CT, USA B.S. in Astrophysics

Thesis: Using Dark Molecular Clouds to Understand Distant Galaxies

Advisor: Hector Arce

RESEARCH POSITIONS

Graduate Researcher, Institute for Astronomy

August 2022 - Present

Advisor: Jonathan Williams

Summary: Focused on mid-infrared spectroscopy of protoplanetary disks using Keck II NIRSPEC+AO

and IRTF iSHELL.

Graduate Researcher, Institute for Astronomy

 $August\ 2021-Present$

Advisor: Eric Gaidos

Summary: Characterized the inner protoplanetary disk of a variable YSO using contemporaneous, multiwavelength (IR - X-ray) data; developed a photometry pipeline for infrared and optical instru-

ments on the Rapid Eye Mount Telescope

Graduate Researcher, Institute for Astronomy

August 2020 – August 2021

Advisor: Jonathan Williams

Summary: Surveyed protoplanetary and protostellar disk masses in the Serpens region and analyzed evolutionary trends across different star-forming regions

NSF REU Researcher, Haystack Observatory, MIT

May 2019 – August 2019

Advisor: Jens Kauffmann

Summary: Created an algorithm to describe the density structure of molecular clouds with dendrograms; analyzed temperature, density, and star formation rates of clouds in the LEGO survey; created script for automatic cutouts from IRSA's IPAC database

Undergraduate Researcher, STARS II Fellow, Yale University

Oct 2018 - May 2020

Advisors: Marla Geha & Hector Arce

Summary: Analyzed kinematics of dwarf galaxies; characterized structure and star formation rate of

IC 5146

Undergraduate Researcher, Yale University

May 2018 – Aug 2018

Advisor: Hector Arce

Summary: Mapped emission lines from molecular outflows for protostars in Perseus

Undergraduate Researcher, STARS Summer Fellow, Yale University

May 2017 – Aug 2017

Advisor: Marla Geha

Summary: Modeled satellite galaxy color evolution

REFEREED PUBLICATIONS

1. Anderson, A.R., Williams, J.P., van der Marel, N., et al. 2022 (938, 55, ApJ). Protostellar and Protoplanetary Disk Masses in the Serpens Region

FELLOWSHIPS & AWARDS

FELLOWSHIPS George Orton and Mona Marie Elmore ARCS Award in Astronomy

	Best Second-Year Project Institute Best First-Year Project Institute Director's Research Excellence Award Institute George Beckwith Prize for Outstanding Graduating Senior in Astronomy Research Experience for Undergraduates (REU) Fellowship at MIT	Honolulu Chapter, 2023 Hawai'i at Mānoa, 2023 Ite for Astronomy, 2022 Ite for Astronomy, 2021 Ite for Astronomy, 2020 Yale University, 2020 NSF, 2019 University, 2018 – 2020 Yale University, 2017
Presentation (*Invited)	IsProtostars and Planets VII Joint ALMA Observatory Jets and Discs e-Study Meeting* 235th Meeting of the American Astronomical Society Science, Technology, and Research Scholars at Yale II Program Symposium Columbia Undergraduate Science Journal Symposium Science, Technology, and Research Scholars at Yale II Program Symposium Science, Technology, and Research Scholars at Yale Program Symposium Science, Technology, and Research Scholars at Yale Program Summer Sympo	April 2023 January 2023 January 2020 November 2019 April 2019 April 2019 July 2017
Telescope Proposals	Keck Observatory (NIRSPEC+AO) - 2 nights awarded (PI) Resolving protoplanetary disk kinematics to interpret JWST spectra Co-Is: Jonathan P. Williams, Adwin Boogert, Clara Ross Keck Observatory (NIRSPEC+AO) - 2 nights awarded (Co-I) Disk winds from embedded protostars	UH 2023B UH 2023B
	PI: Jonathan P. Williams; Co-I: Adwin Boogert NASA IRTF (iSHELL) - 22 hours awarded (Co-I) COnnecting the inner and outer regions of protoplanetary disks PI: Jonathan P. Williams; Co-I: Adwin Boogert	UH 2023A
	Keck Observatory (NIRSPEC+AO) - 2.5 nights awarded (Co-I) COnnecting the inner and outer regions of protoplanetary disks PI: Jonathan P. Williams	UH 2023A
	Keck Observatory (NIRSPEC+AO) - 2.5 nights awarded (PI) Resolving protoplanetary disk kinematics to interpret JWST spectra Co-Is: Jonathan P. Williams, Adwin Boogert, Clara Ross NASA IRTF (SpeX) - 6 hours awarded (Co-I)	UH 2023A UH 2022B
	Running Out of Gas Near the End of Planet Formation PI: Eric Gaidos; Co-I: Rena A. Lee Keck Observatory (NIRSPEC+AO) - 3 nights awarded (Co-I) Resolving protoplanetary disk kinematics to interpret JWST spectra PI: Jonathan P. Williams; Co-I: Adwin Boogert	UH 2022B
Observing Experience	Keck 2 (10 m) NIRSPEC: 28 1/2 nights IRTF (3 m) iSHELL: 4 1/2 nights IRTF (3 m) SpeX: 1/2 night IRAM Telescope (30 m): 3 nights	2022 - 2023 2022 - 2023 2020 2020
DEPARTMENT SERVICE	Office Space Representative Faculty Mentor Working Group IfA Graduate Admissions Representative	2022 - Present 2022 2021 - 2022
OUTREACH	Maunakea Observatories Hilo AstroDay Institute for Astronomy Open House (and Invited Talk*) Shadow the Scientists Subject Matter Expert IfA Research Experience for Undergraduates (REU) Co-Director Maunakea Observatories Kona AstroDay Maunakea Scholars Program Hawaii Geek Meet Maunakea Observatories Virtual AstroDay	2023 2022*, 2023* 2023 - Present 2023 - Present 2022 2022 - Present 2022 2021

Mentorship	If A Mentoring in Lower Years Mentor	2022 - Present
(*Invited)	If A REU Coffee Chat Mentor	2021 - 2022
	STARS Summer: Applying to Graduate School Panelist*	2020
	Yale Engineering and Science Weekend Panelist*	2020
	STARS II Senior Mentor	2019 - 2020