

Finn Giddings

📍 Institute for Astronomy, University of Hawai‘i at Mānoa

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Research Interests: galaxy evolution, galaxy clusters, galaxy protoclusters, galaxy mergers and interactions, active galacti nuclei (AGN), dwarf galaxies, star formation

Education

Ph.D. Astronomy

Aug 2024 – Present

Institute for Astronomy, University of Hawai‘i at Mānoa

- **Advisors:** Dave Sanders and Roy Gal

M.S. Astronomy

Aug 2022 – Aug 2024

Institute for Astronomy, University of Hawai‘i at Mānoa

- **Project 1:** Galaxy Pairs and Environment in the Hyperion Proto-supercluster ($z \sim 2.5$)
- **Advisor 1:** Roy Gal and Brian Lemaux
- **Project 2:** Far UV Radiation and Star Formation in Dwarf Galaxies with LYRA
- **Advisor 2:** Thales Gutcke and Dave Sanders

B.S. Physics

Aug 2018 - May 2022

Rhodes College

- summa cum laude
- GPA: 3.99/4.0
- Minor in Computer Science
- Member of Football and Track and Field Teams

Honors and Awards

Campbell Trophy Semifinalist *National Football Foundation*

Fall 2021

REU Fellowship *NSF/UH Mānoa*

Summer 2021

Phi Beta Kappa *Rhodes College*

Spring 2021

The William Spandow Scholarship in Physics *Rhodes College*

Spring 2021

Sigma Pi Sigma *Rhodes College*

Fall 2020

Eagle Scout *Boy Scouts of America*

2017

Publications

First Author

- **Giddings, F.**, Lemaux, B.C., Gal, R., et al. "Stellar Mass Growth via Mergers in the Hyperion Proto-supercluster ($z \sim 2.5$)" *In Prep.*
- **Giddings, F.**, Gutcke, T., Pakmor, R., et al. "Far UV Radiation and Star Formation in Dwarf Galaxies with LYRA" *In Prep.*

Contributing

- Hung, D., Lemaux, B.C., Cucciati, O., et al. (incl. **Giddings, F.**), "Discovering Large-Scale Structure at $2 < z < 5$ in the C3VO Survey", *The Astrophysical Journal*, Submitted
- Shah, E., Lemaux, B.C., Forrest, B., et al. (incl. **Giddings, F.**), "Enhanced AGN Activity in Overdense Galactic Environments at $2 < z < 4$ ", *Monthly Notices of the Royal Astronomical Society*, Submitted
- Forrest, B., Lemaux, B.C., Shah, E., et al. (incl. **Giddings, F.**) 2024, "Environmental Effects on the Stellar Mass Function in a $z \sim 3.3$ Overdensity of Galaxies in the COSMOS Field", *The Astrophysical Journal*,

971, 169

- Shah, E., Lemaux, B.C., Forrest, B., et al. (incl. **Giddings, F.**) 2024, "Identification and characterization of six spectroscopically confirmed massive protostructures at $2.5 < z < 4.5$ ", *Monthly Notices of the Royal Astronomical Society*, 529, 873
- Staab, P., Lemaux, B.C., Forrest, B., et al. (incl. **Giddings, F.**) 2024, "Protoclusters as drivers of stellar mass growth in the early Universe, a case study: Taralay - a massive protocluster at $z\ 4.57$ ", *Monthly Notices of the Royal Astronomical Society*, 528, 6934

Awarded Proposals

JWST Cycle 3 - "Unveiling the Morphological Evolution of Galaxies in Protoclusters: Insights from JWST Imaging", **PI: Lu Shen**, CO-I, 2024

Presentations and Posters

Presentations

- **The First Gigayear(s)** *Gemini / NOIR Lab* 2024
- **Physics Department Research Talk** *Rhodes College* 2021
- **IfA REU Symposium** *Institute for Astronomy* 2021

Posters

- **The First Gigayear(s)** *Gemini / NOIR Lab* 2024
- **UROP Research Symposium** *UH Mānoa* 2021

Teaching Experience

Professional Development Program <i>ISEE, UC Santa Cruz</i>	2024
Instructor <i>ASTR 110 Lab: Survey of Astronomy</i>	Jan 2023 - May 2024
Teaching Assistant <i>ASTR 426: Galaxies and Cosmology</i>	Aug 2024 - Present
Teaching Assistant <i>ASTR 300 Lab: Observational Astronomy</i>	Aug 2024 - Present
Teaching Assistant <i>ASTR 110 Lab: Survey of Astronomy</i>	Aug 2022 - Dec 2022
Teaching Assistant <i>ASTR 130: Intro to Archaeoastronomy</i>	Aug 2022 - Dec 2022

Outreach

HI-Star Mentor and Project Leader	2022 - Present
Maunakea Scholars Mentor	2023 - Present
Akamai Internship Program <i>Program Instructor</i>	2024
Journey Through the Universe <i>Future Educator</i>	2025
Institute for Astronomy Outreach Events <i>Volunteer</i>	Aug 2022 - Present
◦ IfA Open House	2023,2024
◦ Boy Scouts Astronomy Merit Badge Day	2024
◦ Leeward Community College Discovery Day	2023
◦ Sustainable Coastlines Hawaii Kaimuki Cleanup Festival	2023
◦ AstroDay Kona	2023
◦ Welina Mānoa: First Day of School Kick-Off Event	2023
◦ Sustainable Coastlines Hawaii Island Wide Cleanup Event	2023
◦ Lana'i Cat Sanctuary Ohana Stargazing Event	2023
◦ Makahiki Games & Stargazing Event	2023
◦ Hawaii Geek Meet	2022

Department Service

Graduate Student Representative

Aug 2024 - Present

Graduate Office Representative

Aug 2023 - Aug 2024