KATIYA FOSDICK

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EDUCATION

Ph.D., Astrophysics Division, Physics Department, MIT — In Progress (Start: 2022)
BSc with Honors, Astronomy Department, UW-Madison — 2022

GRANTS, HONORS, & AWARDS

Graduate Research Fellowship Program Honorable Mention, NSF — 2023
Lowell Doherty Award for Excellence in Astronomy, Astronomy Department, UW-Madison — 2022
Dean's List, College of Letters and Science, UW-Madison — 2019 - 2022
Dr. Maritza Irene Stapanian Crabtree Award, Physics Department, UW-Madison — 2021
Undergraduate Research Award, Wisconsin Space Grant Consortium — 2021
Summer Student Research Assistantship, NRAO — 2021
Undergraduate Research Award, Wisconsin Space Grant Consortium — 2020
Undergraduate Scholarship for Summer Study, UW-Madison — 2019
Undergraduate Research Award, Wisconsin Space Grant Consortium — 2019

RESEARCH EXPERIENCE

Research Assistant, MIT Kavli Institute — 2022 - Present
Advisor: Professor Mike McDonald
Project: *The Formation and Evolution of the Most Massive Galaxies Across Cosmic Time*

Research Intern, MIT Kavli Institute — 2022
Advisor: Professor Mike McDonald
Project: *Simulating the Red-Sequence of Evolved-Galaxy Populations with FSPS*

Undergraduate Researcher, Astronomy Department, UW-Madison — 2018 - 2022
Advisor: Professor Eric Wilcots
Project: *The Evolution and Growth of Nearby Galaxy Groups*

Independent Study Student, Astronomy Department, UW-Madison — 2018 - 2022
Instructor: Professor Eric Wilcots

REU Researcher, Very Large Array, NRAO — 2021
Advisors: Dr. Luis Henry Quiroga-Nuñez & Dr. Lorant Sjouwerman
Project: *Extracting Periods from ZTF Data for MIRAs Identified by Gaia*

Research Intern, Wisconsin IceCube Particle Astrophysics Center — 2017
Supervisor: Professor Kael Hanson
Project: *Exploring Background Ionizing Radiation with Cloud Chambers*

PUBLICATIONS

4. Quiroga-Nuñez et al. (including **K. Fosdick** - co-author). *Characterizing the Evolved Stellar Population in the Galactic Foreground II: Kinematics, Variability, and SiO Maser Luminosity Functions.* (in preparation for submission to ApJ)

3. **K. Fosdick**. *The Evolution and Growth of Nearby Galaxy Groups.* Mar. 2022, published to the Proceedings of the 31st Annual Wisconsin Space Conference: Advancing Aerospace with Artificial Intelligence. DOI: `https://doi.org/10.17307/wsc.v1i1.326`

2. **K. Fosdick**, L.H. Quiroga-Nuñez, & L. Sjouwerman. *Characterizing The Variability of Long Period Variable Stars in the $r \leq 2$ kpc Solar Neighborhood with Gaia and ZTF.* Sep. 2021, published to the Proceedings of the 2021 NRAO/GBO Summer Student Symposium. URL: `https://www.nrao.edu/students/2021/Reports/FosdickKatiya.pdf`

1. **K. Fosdick**. *The Evolution and Growth of Nearby Galaxy Groups.* Mar. 2020, published to the Proceedings of the 29th Annual Wisconsin Space Conference: Future of Space Flight. DOI: `https://doi.org/10.17307/wsc.v1i1.282`

PRESENTATIONS

INVITED PRESENTATIONS

Research Talk, Monday Science Seminar, UW-Madison Astronomy Department (Canceled) 2023
Research Talk, NRAO Socorro Colloquium 2022

CONFERENCE PRESENTATIONS

Research Talk, South Pole Telescope - Galaxy Clusters Annual Meeting 2024
Research Talk, 244th AAS Meeting 2024
Research Talk, South Pole Telescope - Galaxy Clusters Annual Meeting 2023
Poster, 240th AAS Meeting 2022
Research Talk, NRAO/GBO Summer Student Symposium 2021
Poster, 29th Annual Wisconsin Space Conference 2019

TEACHING & OUTREACH EXPERIENCE

Panelist, UW-Madison Astronomy Department Graduate Admissions FAQ Panel 2023
Teaching Assistant, Physics 8.398: First-Year Graduate Seminar, Physics Department, MIT 2023
Course Developer (200 hr), Online Astrophysics Research Course for URM high schoolers, MITES Semester, MIT 2023
Instructor (6 weeks), Online Astrophysics Research Course for URM high schoolers, MITES Semester, MIT 2023
Scientific Consultant, Article: Drew Turney. *A Brief History of the Ludicrous (And Misguided) Plots to Blow Up the Moon.* Apr. 2023, published to PopularMechanics.com.

LEADERSHIP AND PROFESSIONAL SERVICE

Member, MIT Physics Values Committee 2023 - Present
Member, Physics 322 Teaching Equity Board, UW-Madison 2021