

# KATIYA FOSDICK

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University of Wisconsin–Madison  
Department of Astronomy  
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## EDUCATION

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### University of Wisconsin - Madison

*Sep. 2018 - Present*

BS in Astronomy-Physics

Cum. GPA: 4.0

Honors

Physics GPA: 4.0

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## RESEARCH AND TEACHING EXPERIENCE

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### University of Wisconsin-Madison Astronomy Department

*Sep. 2018 - Present*

Undergraduate Researcher and Independent Study Student

Advisor: Professor Eric Wilcots

Project Title: *The Evolution and Growth of Nearby Galaxy Groups*

Senior Honors Thesis: *Gravitational Microlensing Signatures in 120 Nearby Galaxy Groups*

### National Radio Astronomy Observatory & Very Large Array

*May - Aug. 2021*

REU Researcher

Advisors: Dr. Loránt O. Sjouwerman & Dr. Luis Henry Quiroga-Nuñez

Project Title: *Extracting Periods from ZTF Data for MIRAs Identified by Gaia*

### University of Wisconsin-Madison Astronomy Department

*Sep. 2021 - Present*

Astronomy 310 – Stellar Astrophysics Course Grader

Supervisor: Professor Richard Townsend

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## PUBLICATIONS

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**K. Fosdick** & E. Wilcots. *Evolution and Growth of Galaxy Groups* (In preparation for submission to MNRAS)

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)

**K. FOSDICK**. *The Evolution and Growth of Nearby Galaxy Groups*. Accepted Dec. 2021 to the Proceedings of the 30th Annual Wisconsin Space Conference. (Awaiting Jan. 2022 publication)

**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>

**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

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- 239th Meeting of the American Astronomical Society - Poster** *Jan. 2022*  
*Evolution and Growth of Galaxy Groups*, First Author: E.Wilcots
- 239th Meeting of the American Astronomical Society - Poster** *Jan. 2022*  
*Characterizing The Variability of Long Period Variable Stars in the  $r \leq 2$  kpc Solar Neighborhood With Gaia and ZTF*
- 2021 NRAO/GBO Summer Student Symposium - Research Talk** *Aug. 2021*  
*Characterizing the Variability of TP-AGBs with Gaia/ZTF*  
Recording: <https://youtu.be/1qo5R0u19f8>
- 29th Annual Wisconsin Space Conference - Poster** *Aug. 2019*  
*The Evolution and Growth of Nearby Galaxy Groups*

## GRANTS, HONORS, AND AWARDS

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- College of Letters & Science Dean's List** *Mar. 2019 - Jun. 2021*  
University of Wisconsin-Madison College of Letters and Science 6 Semesters
- 2020 - 2021 Dr. Maritza Irene Stapanian Crabtree Award (\$2000)** *Jul. 2021*  
University of Wisconsin-Madison Physics Department
- 2020 - 2021 Undergraduate Research Award (\$4000)** *Apr. 2021*  
Wisconsin Space Grant Consortium  
**K.Fosdick** wrote proposal to secure grant
- NRAO Summer Student Research Assistantship (\$8592)** *Mar. 2021*  
National Radio Astronomy Observatory
- 2019 - 2020 Undergraduate Research Award (\$4000)** *Apr. 2020*  
Wisconsin Space Grant Consortium  
**K.Fosdick** wrote proposal to secure grant
- UW-Madison Undergraduate Scholarship for Summer Study (\$500)** *May 2019*  
University of Wisconsin-Madison
- 2018 - 2019 Undergraduate Research Award (\$3500)** *Apr. 2019*  
Wisconsin Space Grant Consortium  
**K.Fosdick** wrote proposal to secure grant

## PROGRAMMING EXPERIENCE

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<b>Python - Proficient</b>	3 years
Algorithm writing, data manipulation and sorting, and Matplotlib figure production in several research projects and classes. Experience includes running SQL queries, os commands, and accessing Google drive through Python interface. Experience with Pycharm IDE and Jupyter Notebooks.	
<b>SQL/ADQL - Proficient</b>	3 years
<b>MATLAB - Proficient</b>	2 years
<b>TOPCAT - Proficient</b>	1 year
<b>Mathmatica - Proficient</b>	1 year
<b>Java - Novice</b>	1 year

## LANGUAGES

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<b>English</b>	Fluent, Native Speaker
<b>Spanish</b>	Semi-Fluent; 6 years of coursework, 9 years of practice

## OTHER EMPLOYMENT

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<b>Middleton Pizza Hut</b>	Customer Service Representative, Aug. 2016 - Nov. 2019
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