

## EDUCATION

- Yale University**, New Haven, CT 2024 – Present  
– Ph.D. in Astronomy (Expected 2030)
- College of William & Mary**, Williamsburg, VA 2020 – 2024  
– B.S. in Physics with Departmental Honors, Minor in English  
– Honors Thesis: *Faraday Rotation Results Associated with the Photoionized Gas of IC 1396*  
Advisors: Dr. Allison Costa, Prof. Irina Novikova  
– Dean's List Spring 2024, Fall 2023, Spring 2023, Fall 2022, Spring 2021

## RESEARCH EXPERIENCE

- Graduate Researcher**, Yale Astronomy Department Fall 2024 – Present  
Advisor: Prof. Héctor Arce
- Summer Researcher (Post-bacc)**, Center for Astrophysics | Harvard & Smithsonian Summer 2024  
Advisors: Dr. Joshua Bennett Lovell, Dr. Kristina Monsch, Dr. David J. Wilner, Dr. Alice Booth
- Undergraduate Researcher (NSF REU)**, Smithsonian Astrophysical Observatory 2023 – 2024  
Advisors: Dr. Joshua Bennett Lovell, Dr. David J. Wilner, Dr. Eric Koch
- Undergraduate Researcher (NSF REU)**, National Radio Astronomy Observatory (NRAO) 2022 – 2024  
Advisor: Dr. Allison Costa
- Undergraduate Researcher**, William & Mary | Quantum & Optics Research Group 2021 – 2022  
Advisors: Prof. Irina Novikova, Prof. Eugeniy Mikhailov
- Undergraduate Research Assistant**, William & Mary | Planetary Research Group June 2021 – August 2021  
Advisors: Dr. Jonathan Kay, Mikayla Huffman (graduate student at CU Boulder)

## PUBLICATIONS

2. **Rahman, R. A.**, Lovell, J. B., Koch, E. W., Wilner, D. J., Andrews S. M., Monsch, K., Ha, D. 2025, [ApJ](#), 981, 68. *The Radiowave Hunt for Young Stellar Object Emission and Demographics (RADIOHEAD): A Radio Luminosity–Spectral Type Dependence in Taurus–Auriga YSOs*
1. Lovell, J. B., Keating, K. G., Andrews S. M., MacGregor, M., **Rahman, R. A.**, Rao R., Williams J. P. 2024, [ApJL](#), 962, L12. *SMA Detection of an Extreme Millimeter Flare from the Young Class III Star HD 283572*

## AWARDS, SCHOLARSHIPS AND HONORS

- Physics Undergraduate Research Prize**, William & Mary 2024
- NSF Graduate Research Fellowship Honorable Mention** 2024
- Chambliss Poster Competition Finalist**, American Astronomical Society (AAS) 243<sup>rd</sup> Meeting 2024
- Charles Center Semester Research Grant**, William & Mary 2023
- 2<sup>nd</sup> Place (Honorable Mention)**, William & Mary 2023 Physics Fest Lightning Talk 2023
- Virginia Space Grant Consortium Undergraduate STEM Research Scholarship** 2023
- Virginia State Scholarship Fund Scholarship for Women in Higher Education** 2023, 2021

<b>Mentoring for Careers in Physics Mentee Travel Support Award, William &amp; Mary</b>	2023
<b>Best Astrophysics Poster Prize, Conference for Undergraduate Women in Physics, Princeton University</b>	2023

## PRESENTATIONS

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### Talks:

- **Northeast Star & Planet Formation Meeting**, MIT Haystack Observatory July 2024  
*RADIOHEAD: The Radiowave Hunt for young stellar object Emission And Demographics*
- **Physics Honors Thesis Talk**, William & Mary May 2024  
*Faraday Rotation Results Associated with the Photoionized Gas of IC 1396*
- **Mid-Year Physics Honors Thesis Talk**, William & Mary December 2023  
*Faraday Rotation Results Associated with the Photoionized Gas of IC 1396*
- **W&M 2023 Physics Fest Student Lightning Talk**, William & Mary October 2023  
*RADIOHEAD: The Radiowave Hunt for young stellar object Emission And Demographics*
- **Astrophysics REU Summer Symposium**, Center for Astrophysics | Harvard & Smithsonian August 2023  
*RADIOHEAD: The Radiowave Hunt for young stellar object Emission And Demographics*
- **W&M 2023 Physics Undergraduate Research Showcase**, William & Mary April 2023  
*Faraday Rotation Results Associated with the Photoionized Gas of IC 1396*
- **W&M Scholars Undergraduate Research Experience 3<sup>rd</sup> Annual Undergraduate Research Conference**, William & Mary April 2023  
*Faraday Rotation Results Associated with the Photoionized Gas of IC 1396*
- **W&M 2022 Physics Fest Lightning Talk**, William & Mary October 2022  
*Faraday Rotation Results Associated with the Photoionized Gas of IC 1396*
- **Summer Student Research Symposium**, National Radio Astronomy Observatory (NRAO) August 2022  
*Faraday Rotation Results Associated with the Photoionized Gas of IC 1396*
- **W&M 2022 Physics Undergraduate Research Showcase**, William & Mary April 2022  
*Acousto-Optic Modulator Optimization*

### Posters:

- **Gordon Research Conference 2025 Origins of the Solar System**, Mount Holyoke College June 2025  
*RADIOHEAD: The Radiowave Hunt for young stellar object Emission And Demographics*
- **Gordon Research Seminar 2025 Origins of the Solar System**, Mount Holyoke College June 2025  
*RADIOHEAD: The Radiowave Hunt for young stellar object Emission And Demographics*
- **Virginia Space Grant Consortium Student Research Conference**, Newport News, VA April 2024  
*Faraday Rotation Results Associated with the Photoionized Gas of IC 1396*
- **2024 American Physical Society March Meeting**; Virtual March 2024  
*Faraday Rotation Results Associated with the Photoionized Gas of IC 1396*
- **American Astronomical Society (AAS) 243<sup>rd</sup> Meeting**, New Orleans, LA January 2024  
*RADIOHEAD: The Radiowave Hunt for young stellar object Emission And Demographics*
- **Conference for Undergraduate Women in Physics**, Princeton University January 2023  
*Faraday Rotation Results Associated with the Photoionized Gas of IC 1396*
- **American Astronomical Society (AAS) 241<sup>rd</sup> Meeting**, Seattle, WA January 2023  
*Faraday Rotation Results Associated with the Photoionized Gas of IC 1396*

## OBSERVATIONS

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### Accepted Proposals:

- Submillimeter Array (SMA) - 30 hours awarded (CoI Rahman, PI Lovell)  
*Millimeter follow-up of radio-detected YSO multiples: Is stellar multiplicity driving class III millimeter variability?* (2023B-S038)

### Observing Experience:

- Palomar 200-in Telescope (WIRC+Pol) - 3 nights (2024B)
- Keck Observatory (OSIRIS) - 1 night (2024B)

## TEACHING EXPERIENCE

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### Teaching Fellow, Yale University

- ASTR 210: Stars and their Evolution (Prof. Robert Zinn) Fall 2024
- ASTR 120: Galaxies and the Universe (Dr. Michael Faison) Spring 2025

## ATTENDED WORKSHOPS

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**2025 Summer School in Statistics for Astronomers**, Center for Astrostatistics at The Pennsylvania State University Jun 2025

**ALMA Data Calibration & Analysis Workshop**, Center for Astrophysics | Harvard & Smithsonian Oct 2024

## OUTREACH AND SERVICE

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### Talks:

- **AstroSibs Professional Development Summer Research Info Session**, Yale Astronomy Department December 2024  
*How to Apply to REUs*
- **Mentoring for Careers in Physics (MCP) Workshop**, William & Mary November 2023  
*Applications & Opportunities (Internships & Research)*

### Professional:

- **Astronomy Student Council**, Yale Astronomy Department August 2025 – Present  
*Member (as GSA Representative)*
- **Graduate Student Assembly Representative**, Yale University Graduate School of Arts & Sciences May 2025 – Present  
*Astronomy Department Representative*
- **Exoplanet & Stars Seminar**, Yale Astronomy Department May 2025 – Present  
*Seminar co-organizer*
- **Astronomy Committee on Diversity and Climate**, Yale Astronomy Department September 2024 – Present  
*Member*
- **Committee on the Status of Minorities in Astronomy (CSMA)**, AAS October 2023 – Present  
*Member*

- **Mentoring for Careers in Physics (MCP) Organization**, William & Mary *Member* December 2021 – May 2024
- **Society of Physics Students**, William & Mary *Member* August 2020 – May 2024
- **College of Arts & Sciences Faculty Hire Committee**, William & Mary *Undergraduate Representative* January 2023 – March 2023

#### **Community:**

- **South Asian Student Association**, William & Mary *Member* August 2020 – May 2024
- **First Generation & Low Income Student Organization**, William & Mary *Member* August 2020 – May 2024
- **Muslim Student Association**, William & Mary *Member* August 2020 – May 2024

#### **MEDIA COVERAGE**

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- Navigating a future studying stars: W&M student co-authors prestigious astrophysics study**, William & Mary News February 2024
- Extreme Eruption on Young Sun-like Star Signals Savage Environment for Developing Exoplanets**, Center for Astrophysics | Harvard & Smithsonian News Release February 2024