

**Hailey Moore**  
Curriculum Vitae  
Email: mooreha8@msu.edu

---

**EDUCATION**

**Michigan State University**, East Lansing, Michigan  
*Doctorate of Philosophy, Astronomy and Astrophysics*

**University of Iowa**, Iowa City, Iowa  
*Bachelor of Science, Astronomy and Physics, Honors in Astronomy, December 2019*

**RESEARCH  
EXPERIENCE**

**Graduate Research Assistant**  
*Michigan State University, Advisors: Dr. Eric Koch, Dr. Laura Chomiuk*

- Understanding energetic budget in NGC604

**Undergraduate Research Assistant:**  
*University of Iowa, Advisor: Dr. Cornelia Lang*

- Analyzed polarization properties of Non-Thermal Filaments in Milky Way Galactic Center
- Utilized python scripts to understand frequency dependence of polarization intensity
- Reduced data from VLA and measured flux density to search for variability in the unusual source N3

**Summer Undergraduate Laboratory Intern**  
*Joint Global Change Research Institute, Advisor: Dr. Steve Smith*

- Improve and expand estimates of historical emissions caused by residential and landfill waste burning in the Community Emissions Data System (CEDS).
- Update CEDS to estimate waste generation on GDP per capita

**TEACHING  
EXPERIENCE**

**Graduate Teaching Assistant**  
Michigan State University, ISP 205L: Visions of the Universe

**Undergraduate Teaching Assistant**  
University of Iowa, PHYS: 1611, PHYS: 1612

**COMPUTER  
SKILLS**

**Programming Languages:** *Fluent:* Python, L<sup>A</sup>T<sub>E</sub>X. *Familiar:* R (RStudio and tidyverse), SQL  
**Applications:** Common Astronomy Software Applications (CASA)  
**Operating Systems:** Unix, Mac OSX, Windows.

**ACADEMIC  
AWARDS**

- Iowa Center for Research by Undergraduates Fellowship
- Iowa Heritage Award
- UI Old Gold Scholarship
- William and Joy Greene UI Foundation Scholarship
- Edward B. Nelson Scholarship
- UI Summer Hawk Tuition Grant
- Iowa Center for Research by Undergraduates Travel Grant
- Department of Physics and Astronomy Undergraduate Scholar

## PRESENTATIONS

### Posters:

- *Calibration of VLA Radio Data from the Galactic Center Radio Arc*: 2017 Fall Undergraduate Research Festival, Iowa City, IA
- *Polarization in the Galactic Center Radio Arc*: 2018 Iowa Research in the Capitol, Des Moines, IA
- *Polarization in the Galactic Center Radio Arc*: 2018 Spring Undergraduate Research Festival, Iowa City, IA,
- *The Galactic Center Radio Arc: Understanding the Polarization Properties and Intrinsic Magnetic Field*: Spring Undergraduate Research Festival 2019
- *Variability of Unusual Galactic Center Source N3*: 235th American Astronomical Society Meeting, Honolulu, HI
- *Variability of Unusual Galactic Center Source N3*: Conference for Undergraduate Women in Physics, Minneapolis, MN

### Talks:

- *Common Astronomy Software Applications (CASA)*: University of Iowa Undergraduate Colloquium, Iowa City, IA, Talk, **Hailey Moore**, Genna Crom
- *Updated Waste Burning Air Pollutant Emissions*: Joint Global Change Research Institute SULI Symposium, College Park, MD, Talk, **Hailey Moore**, Steven Smith

## PUBLICATIONS

Dylan M. Paré, Cornelia C. Lang, Mark R. Morris, **Hailey Moore**, Sui Ann Mao, *A VLA Polarimetric Study of the Galactic Center Radio Arc: Characterizing Polarization, Rotation Measure, and Magnetic Field Properties*, The Astrophysical Journal, 884:170 (17pp), 2019, doi:10.3847/1538-4357/ab45ed