

Claire Elyse Koppenhafer

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1440 Biomedical Physical Sciences,
567 Wilson Rd, East Lansing, MI 48824

EDUCATION

- December 2022* PhD in Astronomy & Astrophysics
and Computational Mathematics, Science, & Engineering,
Michigan State University
- December 2020* MS in Astronomy & Astrophysics,
Michigan State University
- May 2017* Honors BS in Physics, Summa Cum Laude,
Lyman Briggs College, Michigan State University
- 2015* Semester abroad, Universiteit Utrecht, the Netherlands

PROFESSIONAL DEVELOPMENT

- 2023* **NSF Cyber Ambassador Training**
- 2019* DOE Computational Science Graduate Fellowship Practicum at Sandia National Laboratories, New Mexico
- 2018* Kavli Summer Program in Astrophysics, hosted at the Center for Computational Astrophysics, Flatiron Institute

PUBLICATIONS

FIRST AUTHOR REFEREED

3. “Seeking Self-regulating Simulations of Idealized Milky Way-like Galaxies”, Koppenhafer, C. et al. 2023, *The Astrophysical Journal*, 951, 2, 107
2. “The breakBRD Breakdown: Using IllustrisTNG to Track the Quenching of an Observationally Motivated Sample of Centrally Star-forming Galaxies”, Koppenhafer, C. et al. 2020, *The Astrophysical Journal*, 903, 2, 143
1. “Modeling the Effects of Star Formation with a Volumetric Feedback Model”, Koppenhafer, C. and O’Shea, B. W. 2018, *Journal of Computational Science Education*, 9, 1, 29

OTHER REFEREED

1. “What Is Inside Matters: Simulated Green Valley Galaxies Have too Centrally Concentrated Star Formation”, Starkenburg, T. K., Tonnesen, S., Kopenhafer, C., 2019, *The Astrophysical Journal*, 874, 2

TECHNICAL REPORTS

1. “Experimental Validation of Dense Plasma Transport Models using the Z-Machine”, Beckwith, K. R. C., Knapp, P. F., Haack, J. R., Cochran, K., Clay III, R., Kopenhafer, C., Stanek, L., Mattsson, T. R., Murillo, M. S., 2019, Sandia Technical Report SAND2019-13007

GRANTS

1. Co-PI — ACCESS Maximize Allocation, “Probing Galaxy Formation at Low and High Redshifts (renewal)”

POSTERS & PRESENTATIONS

- | | |
|------|---|
| 2021 | Talk — “Gas in Motion: How Simulated Galaxies Control Their Star Formation”
Department of Energy Computational Science Graduate Fellowship Annual Review Program |
| 2020 | Poster — “Precipitation-Regulated Star Formation in Simulated Milky Way-like Galaxies”
European Astronomical Society Annual Meeting |
| 2019 | Seminar — “ \bar{Z} Uncertainty Quantification for 1D Kinetic Simulations”
Nambe Seminar Series |
| 2019 | Poster — “What Goes Around Comes Around: The Circumgalactic Medium and its Relation to Star Formation”
DOE CSGF Annual Review Program |
| 2017 | Poster — “Fire Burn and Cauldron Bubble: Modeling Galactic Feedback with Adaptive Mesh Simulations”
Blue Waters Symposium; Forging Connections Conference |

TEACHING EXPERIENCE

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| Fall 2023 | Instructor — Graduate High Performance Computing with Python |
| May 2018 | Instructor — Blue Waters Petascale Institute |
| Spring 2016, 2017 | Undergraduate Teaching Assistant — Introductory Astronomy for Majors |

Fall 2016 Undergraduate Teaching Assistant — Undergraduate Stellar Astrophysics

AWARDS & HONORS

2017–2021 Computational Science Graduate Fellowship, *Department of Energy*

2017 Rasmussen Graduate Fellowships, *Michigan State University*

2017 Early Start Fellowship, *College of Natural Science, Michigan State University*

2013–2017 Distinguished Freshman Scholarship, *Michigan State University*

2016–2017 Blue Waters Student Internship

2016 Lawrence Hantel Fellowship,
Department of Physics & Astronomy, Michigan State University

2016 Bruce VerWest Outstanding Junior,
Department of Physics & Astronomy, Michigan State University

2016 Outstanding Undergraduate Teaching Assistant,
Department of Physics & Astronomy, Michigan State University

2013–2015 Professorial Assistantship, *Honors College, Michigan State University*

2014 Forest Akers Endowed Scholarship, *Michigan State University*

2014 Office of Study Abroad Academic Excellence Award,
Michigan State University

2014 Undergraduate Research Grant,
Lyman Briggs College, Michigan State University