# **ANDREW NINE**

Phone: (773) 981-5616 2535 Sterling Hall anine@astro.wisc.edu 475 N. Charter St. www.andrewnine.com Madison, WI 53706 **EDUCATION** PhD University of Wisconsin-Madison, Astronomy Expected May 2023 Advisor: Prof. Robert Mathieu BS Indiana University, Astronomy and Astrophysics May 2016 Advisor: Prof. Constantine Deliyannis BA Indiana University, Theatre and Drama May 2016 **RESEARCH EXPERIENCE** 

## **Research Assistant**

University of Wisconsin-Madison

- Multi-object spectroscopic observation and analysis of binary stars in open clusters
- Measuring surface abundances of mass-transfer products with NEID
- Modeling the chemical evolution of stars post-mass-transfer with MESA

#### **Undergraduate Research Assistant**

Indiana University

• Photometric data reduction and isochrone fitting of the open cluster NGC 2423

#### **PEER-REVIEWED PUBLICATIONS**

"WIYN Open Cluster Study. LXXXII. Radial-Velocity Measurements and Spectroscopic Binary Orbits in the Open Cluster NGC 7789," AJ, 160, 169

## **TEACHING EXPERIENCE**

Co-Instructor, University of Wisconsin-Madison	January 2021 – May 2021
• Gave lectures and led laboratory sessions for Astronomy 140, <i>Earth 2.0: The</i>	
Exoplanet Revolution	-

Teaching Assistant, University of Wisconsin-Madison January 2020 – May 2020

• Designed and led discussion sections for Astronomy 104, *Exploration of the Solar* System

2018 - Present

2015 - 2016

#### HONORS AND AWARDS

Sigma Xi, Member	2021
<ul><li>High Distinction, Indiana University</li><li>Equivalent to <i>magna cum laude</i></li></ul>	2016
<b>Phi Beta Kappa (ΦBK)</b> , Member	2016
GRANTS AND FELLOWSHIPS	
Sigma Xi Grant in Aid of Research, \$3000	2020

#### PRESENTATIONS

**Poster Presentation**, "Radial-Velocity Measurements and Spectroscopic Binary Orbits in the Open Cluster NGC 7789," AAS #236, June 2020.

**Public Presentation**, "Go and Catch Two Merging Stars," Astronomy on Tap-Baton Rouge (virtual), November 2020.

Public Presentation, "Go and Catch Two Merging Stars," Universe in the Park, 2019.

## **PROFESSIONAL EXPERIENCE AND OUTREACH WORK**

## Presenter and Telescope Aide, Universe in the ParkSeptember 2018 – Present

UW-Madison Astronomy, Madison, WI

• Gave free public talks and facilitated telescope viewings in state parks across Wisconsin

#### Writer and Presenter, Radio Astronomy

WORT 89.9 FM, Madison, WI

- Wrote and recorded short segments about current astronomical news for public radio broadcast in the Madison area
- Recent segments I wrote include a celebration of Margaret Burbidge's 100<sup>th</sup> birthday, the OSIRIS-REx mission, and the discovery of phosphine on Venus

## **Facilitator 1**

Museum of Science and Industry, Chicago, IL

- Led experiments and demonstrations covering a wide variety of topics in STEM to the general public in a major museum setting
- Topics that I covered include polymer chemistry, robotics, materials science, and the history and technology of coal mining

January 2019 – Present

September 2016 – August 2018

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## **Volunteer Telescope Facilitator**

Adler Planetarium, Chicago, IL

- Facilitated free public viewing of the Sun through dedicated H $\alpha$  and white-light telescopes
- Engaged the public in discussions of solar physics and other topics in astronomy