

## Education

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### Oregon State University

Ph.D. Physics Education Research

Corvallis, OR

September 2024–Current

- Graduate Certificate in College and University Teaching

### Michigan State University

B.A. Physics

East Lansing, MI

April 2024

- Minor in Computational Mathematics, Science and Engineering

## Research Experience

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### Oregon State University

Graduate Research Assistant

Corvallis, OR

Spring 2025–Current

- Advisor: Dr. Liz Gire
- Modeling Pathways Through the Physics Major at Oregon State
- *Conducted quantitative analysis of student enrollment and performance data to represent pathways through the physics major at Oregon State University, which features a unique upper-division curriculum: Paradigms in Physics. Focused on identifying common course sequences, dropout points, and retake patterns to inform curriculum development and student support strategies.*

### Michigan State University – Dept. of Physics and Astronomy

Undergraduate Researcher – Physics Education Research Lab

East Lansing, MI

Fall 2022–Fall 2024

- Advisor: Dr. Danny Caballero
- Project: “Cataloging Engagement In Computational Practices In A High School Physics Classroom”
- *Employed a qualitative interview process to try to understand computation being integrated into high school physics classrooms. Through this interview, we explored insights into how the students perceive and interact with computation, as well as the practices employed in the classroom.*

### Michigan State University – Dept. of Physics and Astronomy

Undergraduate Researcher – Physics Education Research Lab

East Lansing, MI

Spring 2022–Fall 2022

- Advisors: Dr. Paul Irving & Dr. Daryl McPadden
- Project: “Computation in High School Physics: How the pieces fit together.”
- *Using a card sort interview format, we were able to analyze a student's experience to gain insight on how the class is perceived. This led to conclusions like how there are dissonances in the way this teacher taught physics based on the practice they may be trying to teach, and how a student interacts with those dissonances.*

## Posters

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1. J. Rodgers, P.C. Hamerski, D. McPadden, L. A. H. Wood, M.D. Caballero, “Cataloging Engagement In Computational Practices In A High School Physics Classroom”, *University Undergraduate Research and Arts Forum (UURAF)*, East Lansing, Michigan. April 2023.
2. J. Rodgers, P.C. Hamerski, D. McPadden, M.D. Caballero, P.W. Irving, “How do curriculum design decisions influence student expectations around physics and computation in a computation-integrated physics high school classroom?”, *American Association of Physics Teachers Summer Meeting (AAPT)*, Grand Rapids, Michigan. July 2022.
3. J. Rodgers, P.C. Hamerski, D. McPadden, M.D. Caballero, P.W. Irving, “How do curriculum design decisions influence student expectations around physics and computation in a computation-integrated physics high school classroom?”, *Oslo PER Summer Institute (OPSI)*, Oslo, Norway. June 2022.

## Presentations

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### Contributed Talks

1. J. Rodgers, P.C. Hamerski, D. McPadden, M.D. Caballero, P.W. Irving, "Computation in High School Physics: How the pieces fit together", *American Association of Physics Teachers Summer Meeting (AAPT)*, Grand Rapids, Michigan. July 2022.

## Teaching Experience

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### Oregon State University

'PH' indicates the classes taught in the Physics department

'X students' indicates the number of students with whom I interact directly

**Fall 2024** PH 211 General Physics with Calculus (Recitation), Graduate Teaching Assistant, 30 students

**Winter 2025** PH 202 General Physics (Recitation), Graduate Teaching Assistant, 210 students

**Spring 2025** PH 211 General Physics with Calculus (Studio), Graduate Teaching Assistant

### Michigan State University

'PHY' indicates the classes taught in the Physics department

'X students' indicates the number of students with whom I interact directly

**Spring 2024** PHY 183B Physics for Science and Engineers I, Undergraduate Learning Assistant, 65 students

**Fall 2023** PHY 183B Physics for Science and Engineers I, Undergraduate Learning Assistant, 45 students

**Spring 2023** PHY 183B Physics for Science and Engineers I, Undergraduate Learning Assistant, 39 students

**Fall 2022** PHY 183B Physics for Science and Engineers I, Undergraduate Learning Assistant, 40 students

## Curriculum Development

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### Accessibility Focus, PH 211 (Fall 2024)

Implemented new recitation worksheets to improve accessibility.

### Physics Projects Redesign, PHY 183B (2023-2024)

Reconstructed in-class projects to cultivate improved physics learning.

## Extracurricular Activities

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- **Mentor** Oregon State University 2025–Current  
*Served as a graduate student mentor in the departmental mentorship program, supporting first-term graduate students in their transition to graduate school*
- **Member** Coalition of Graduate Employees 2024–Current
- **Executive Board Member** Michigan State University Special Olympics 2023–2024  
*Worked closely with other members of E-Board to maintain a stream of communication between E-Board and the members of the club.*
- **Mentor** Michigan State University WaMPS Mentoring Program 2023–2024  
*Mentee: Sachet Jain, Physics Major, Michigan State University*
- **Volunteer** Michigan State University Special Olympics 2022–2024  
*Facilitate individuals with intellectual disabilities in participating in inclusive sports and other activities.*
- **Member** Society of Physics Students (SPS) Michigan State Chapter Member 2021–2024

## Technical Experience

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### Programming

- **Proficient:** Jupyter, Mathematica, Python, R Studio, SQL

### Software

- **Proficient:** Microsoft Office, LaTeX, MAXQDA

## Awards

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- Undergraduate Learning Assistant Award

2024