

KAYLEE ELIZABETH GRACE

Department of Physics and Astronomy
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EDUCATION

2022 – Present University of Delaware (UD), Newark, DE.
Ph.D. in Physics, expected in 2029.

Advisor: Dr. Judi Provencal

2018 – 2022 University of Connecticut (UConn), Storrs, CT.
B.S. in **Physics (Honors)** and B.A. in **Women's, Gender, and Sexuality Studies** with a minor in Astrophysics.

Thesis: Electromagnetic Detectability of Binary Supermassive Black Holes
Advisors: Dr. Jon Trump and Megan Davis

WORK AND RESEARCH EXPERIENCE

2022 - Pres. **Graduate Research Assistant**
University of Delaware with Dr. J. Provencal

- Utilizes observational data and modeling to investigate the asteroseismology of pulsating DB white dwarfs

2022 - Pres. **Graduate Teaching Assistant**
University of Delaware

- PHYS 221: Co-req lab for algebra-based mechanics course

2022 - Pres. **Technical Associate**
Mount Cuba Astronomical Observatory

- Lead Public and Children's Programs for audiences of 25 four times a year
- Observe using SARA Consortium telescopes 40 nights a year

Undergraduate Research

2019 – 2022 **Undergraduate Research Assistant**
University of Connecticut with Dr. J. Trump

- Simulations of the electromagnetic variability of supermassive black hole binaries, developed using python

June – Aug. 2021 **IceCube Research Experience for Undergrads (REU)**

University of Wisconsin at River Falls with Dr. S. Seunarine

- Ran simulations using GEANT4 to determine the maximum number of detectable photons lost due to air bubbles in the optical gel

PUBLICATIONS

M. Davis, **K. Grace**, et. al. expected 2023.

MENTORING EXPERIENCE

2020 – 2022 **Physics Department Peer Mentor**

- Acts as a mentor for first and second year undergraduate Physics students via email and Discord
- Answers questions about the major, class selection, clubs, and college more generally

AWARDS AND SCHOLARSHIPS

<i>2020, 2021</i>	New England Scholar (UConn)
<i>2020, 2021</i>	Jacqueline Brown-Dickstein Award (UConn)
<i>2018</i>	Academic Excellence Scholarship (UConn)

CONFERENCES ATTENDED AND PRESENTATIONS

<i>April 2022</i>	UConn Frontiers Undergraduate Research Poster Exhibition, Poster Presentation
<i>Dec. 2021</i>	University of Wisconsin - River Falls Undergraduate Research, Scholarly and Creative Activity Fall Gala, Poster Presentation
<i>Oct. 2021</i>	Conference for Undergraduate Research, Oral Presentation
<i>Jan. 2020, 2021, 2022</i>	Conference for Undergraduate Women in Physics, Yale (2020), Virtual (2021), Virtual (2022) Poster Presentation

COMMITTEES

<i>2020 – 2022</i>	UConn Physics Diversity and Multiculturalism Committee
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- Identify positive measures for developing and sustaining an inclusive and productive environment for all in the Physics Department
- Formulate proposals to recommend to the Department Head for implementation

EXTRACURRICULAR ACTIVITIES

2019 – 2022 National Organization for Women, UConn Chapter

2021 – 2022 President

2020 – 2021 Vice President

2018 – 2022 Women in Physics Club

2021 – 2022 President

2020 – 2021 Vice President

2018 – 2021 Physics Club

2020 – 2021 Secretary