Max Franklin

Postdoctoral Research Fellow
University of Rhode Island
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Education

05/2019: B.A. in Physics **Swarthmore College**

06/2022: M.S. in Physics **Drexel University**

06/2025: Ph.D. in Physics **Drexel University**
Dissertation title: Bolstering Retention of Undergraduate Women in Physics

Research Experience

08/2025-Present **University of Rhode Island**
Postdoctoral experience obtaining and analyzing interview data from faculty and students to determine factors that help or hinder students persist in STEM fields, with an emphasis on underrepresented groups in STEM.
Advisor: Dr. Justin Pratt

09/2020-06/2025 **Drexel University**
Physics education research on motivational factors of women in physics and ways to increase retention of undergraduate women. Includes natural language processing in Python.
Advisor: Dr. Eric Brewe

06/2019-08/2020 **Kansas State University**
Physics education research on how non-physics education instructors are portrayed in physics education literature. Included coding and data analysis in Python.
Advisors: Dr. Linda Strubbe, Dr. Eleanor Sayre

06/2018-08/2018 **Rochester Institute of Technology**
Surface science research on biochemicals left behind on metal wear tracks. Gained familiarity with Auger and XPS methods of spectroscopy, as well as maintenance on vacuum chambers
Advisor: Dr. Michael Pierce

08/2017 **Rochester Institute of Technology**
Professional development for Emerging Education Researchers (PEER)
Two week workshop. Conducted research on conversational links in small groups working on science experiments

05/2017-08/2017 **Swarthmore College**
Research on the relationship between self-efficacy and gender in both engineering and biology majors in undergraduate physics courses. Included statistical analysis in excel
Advisors: Dr. Catherine Crouch, Dr. Ben Geller

08/2016 **Rochester Institute of Technology**
Professional development for Emerging Education Researchers (PEER)
Two week workshop. Conducted research on gender equity in a science classroom for incoming college students

05/2016-08/2016 **Swarthmore College**
Research on physics education, specifically the use of physics courses for undergraduate life science majors. Included statistical analysis in excel
Advisors: Dr. Catherine Crouch, Dr. Ben Geller

Posters and Presentations

1. *Ethical considerations of machine learning research in PER.* Contributed talk, American Physical Society Global Summit, 2025

2. *What correlates with persistence of women in physics?* Contributed talk, 4th World conference on physics education, 2024

3. *Predicting retention of women in physics with machine learning.* Contributed talk, National summer meeting of the American Association of Physics Teachers, 2024

4. *Predicting retention of women in physics with machine learning.* Contributed talk, American Physical Society April Meeting, 2024

5. *Correlating attitudes with persistence in undergraduate women.* Poster, National Physics Education Research Conference, 2023

6. *Correlating attitudes with persistence in undergraduate women.* Contributed talk, National summer meeting of the American Association of Physics Teachers, 2023

7. *Correlating attitudes with persistence in undergraduate women.* Contributed talk, American Physical Society April Meeting, 2023

8. *Studying persistence in undergraduate women.* Invited colloquium, Rutgers University, March 2023

9. *Developing a python tool to categorize motivation of undergraduate women.* Poster, National Physics Education Research Conference, 2022

10. *Using python to categorize motivation of undergraduate women.* Contributed talk, National summer meeting of the American Association of Physics Teachers, 2022

11. *Examining reasons undergraduate women join physics.* Poster, National Physics Education Research Conference, 2021

12. *Examining reasons undergraduate women join physics.* Contributed talk, National summer meeting of the American Association of Physics Teachers, 2021

13. *Physics education research's implicit views of physics faculty*. Poster, National Physics Education Research Conference, 2020

14. *The role of self-efficacy in introductory physics*. Poster, National summer meeting of the American Association of Physics Teachers, 2017

15. *Traditional physics vs IPLS: comparing student experiences*. Poster, National Physics Education Research Conference, 2016

16. *Traditional physics vs IPLS: comparing student experiences*. Poster, National summer meeting of the American Association of Physics Teachers, 2016

Publications

1. **Franklin, Maxwell,** Colin Green, and Eric Brewe. "Categorizing motivation of women in physics with natural language processing." Physical Review-PER. Under Review-May 2025

2. **Franklin, Maxwell** and Eric Brewe. "What correlates with persistence of women in physics?". Physical Review-PER, volume 21, issue 1. 3 Mar. 2025. DOI: 10.1103/PhysRevPhysEducRes.21.010115

3. **Franklin, Maxwell**, Eric Brewe, and Annette Ponnock. "Examining reasons undergraduate women join physics." Physical Review-PER, volume 19, issue 1. 21 Feb. 2023.
DOI: 10.1103/PhysRevPhysEducRes.19.010110

4. **Franklin, Maxwell**, Eric Brewe, Annette Ponnock, and Renee Michelle Goertzen. "Examining reasons undergraduate women join physics." Physics Education Research Conference 2021. Virtual Conference: 2021. 135-140 of PER Conference. 28 Sep. 2021.
DOI: 10.1119/perc.2021.pr.Franklin

5. **Franklin, Maxwell**, Linda E. Strubbe, and Eleanor Sayre. "Physics education research's implicit views of physics faculty." Physics Education Research Conference 2020. Virtual Conference: 2020. 161-166 of PER Conference. 27 Aug. 2020.
DOI: 10.1119/perc.2020.pr.Franklin

6. Archibeque, Benjamin, Florian Genz, **Maxwell Franklin**, Scott V. Franklin, Eleanor C. Sayre. "Quantitative measures of equity in small groups." Physics Education Research Conference: 2017. 44-47 of PER Conference.
DOI: 10.1119/perc.2017.pr.006

Awards and Fellowships

2021 **Natural Science Foundation**
Graduate Research Fellowship

Teaching Experience

Teaching Assistant **July 2021-September 2021**
Teaching assistant for introductory mechanics course. Responsible for leading recitations, holding office hours, leading labs, and grading.

Teaching Assistant **March 2021-June 2021**
Teaching assistant for introductory mechanics course. Responsible for leading recitations, holding office hours, and grading.

Teaching Assistant **January 2021-March 2021**
Teaching assistant for introductory electricity and magnetism course. Responsible for leading recitations, holding office hours, and grading.

Teaching Assistant **October 2020-December 2020**
Teaching assistant for introductory mechanics course for biology majors. Responsible for office hours and grading.

Teaching Assistant **September 2017-December 2017**
Teaching assistant for physics course in advanced mechanics. Responsible for leading recitations and office hours.

Teaching Assistant **September 2016-December 2016**
Teaching assistant for introductory physics course in quantum physics and special relativity. Responsible for leading recitations and facilitating work in class.