

# DANIELLE RUTH SKINNER

## PHYSICS INSTRUCTOR

### SUMMARY

I am an Instructor in the Department of Physics at Oregon State University. I am also a computational astrophysicist and a skilled Python programmer. I am passionate about diversity and equity efforts and am trained in modern pedagogy to maximize audience learning.

### EDUCATION

**PhD in Physics | May 2023 | Georgia Tech**

Minor: Higher Education

**MS in Physics | August 2018 | Georgia Tech**

**BS in Physics & Astronomy | June 2017 | University of Washington**

Double minor: Mathematics & Philosophy

### EXPERIENCE

**Instructor | Oregon State University | Sept 2023 – Present**

- Spring 2023: PH 212 – General Physics with Calculus II
- Co-Author of the [Learning Introductory Physics with Activities](#) online textbook

**Graduate Research Assistant | Georgia Tech | 2018 - 2023**

- Executed cosmological simulations on high performance computers to study the effects of neutron star mergers.
- Awarded the FINESST grant for \$135,000 funding my final three years of my Ph.D.

### PROJECTS

**Correlation of neutron star merger (NSM) parameters with star formation, Georgia Tech**

- Executed and analyzed volumetric time-series forward-modelling simulations on high-performance computers.
- Created data analysis pipelines for over 40 Tb of data to ensure efficient programming.

**Generating fitting pipelines for photometric data from JWST, Georgia Tech**

- Modeled spectral energy distributions using analytic functions of star and galaxy formation to fit photometric data.
- Collaborated with a team of researchers to create a fitting pipeline and maintained version control via Github.

### CONTACT



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[drenniks.github.io](https://drenniks.github.io)



[linkedin.com/in/drenniks](https://linkedin.com/in/drenniks)

### SKILLS

Data analysis | Data visualization |  
Data reduction | Feature  
engineering | Qualitative data |  
Unstructured data | Volumetric data  
| Public speaking | Technical  
writing | Statistics | Modern  
pedagogy

### PROGRAMMING

Python | C++ | Yt | Numpy  
JSON | SciPy | Jupyter | H5py  
Matplotlib | Git | Linux | HTML |  
Bash scripting | slurm | LaTeX  
Mac/Windows

### LEADERSHIP

- Co-founder, Physics Allies for Wellness, Georgia Tech
- Mentoring chair, Graduate Association of Physicists
- President, Graduate Association of Physicists
- Diversity, Equity, and Inclusion Committee, School of Physics, Georgia Tech
- Mentored 8 undergraduate and graduate students.

### CERTIFICATIONS

- Tech to Teaching Certificate, Georgia Tech
- Associate Certificate, Center for Integration of Research, Teaching and Learning
- Machine Shop Certificate, University of Washington