TARINI KONCHADY

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Education

PhD. Astronomy, Texas A&M University *Expected May 2023*

B.Sc. Physics, Johns Hopkins University *May 2017*

Minor in Space Science and Engineering

Research Experience

Texas A&M University, College Station TX *August 2017 - Present*

Graduate Research

- Creating a pipeline to recover Mira variables from optical data taken by the Canada-France-Hawaii Telescope.

Maria Mitchell Observatory, Nantucket MA *June 2016-January 2017*

Undergraduate Summer Research

- Used the *xidl* package to analyze Keck telescope quasar absorption spectra and identify young, distant galaxies.
- Identified 17 galaxies after searching 72 spectra, continuing to build catalog of galaxies.
- Presented results at a public presentation in Nantucket, and at a poster session at the 229th meeting of the American Astronomical Society in Grapevine, Texas.
- Managed research telescope at the Loines Observatory for public open nights, and to take photometric data of the variable star QQ Vulpecula.

Space Telescope Science Institute, Baltimore MD *December 2015 – May 2016*

Undergraduate Research

- Studied relevant literature regarding exoplanet ephemerides and exoplanet detection simulations.
- Remotely attended TESS Science Team meeting in May 2016.

Texas A&M University, College Station TX *June 2015 - August 2015*

Undergraduate Summer Research

- Identified 49 possible transients and 8 Near-Earth Objects (NEOs) from 200 hours worth of observation data.
- Studied astronomical literature to present at daily meetings with REU cohort.
- Took and reduced photometric observations of an eclipsing binary system for four nights at McDonald Observatory, Fort Worth, TX.
- Presented results at university-wide summer research poster session.

Johns Hopkins University, Baltimore MD *October 2014 – October 2015*
Undergraduate Research

- Ran simulations with different exoplanet properties using Python.
- Became familiar with the Python packages Matplotlib and Astropy.

Awards

- Graduate Diversity Fellow (Fall 2017-Summer 2020)
- Dean's List (Fall 2013, Spring 2014, Spring 2015, Fall 2016, Spring 2017)
- Society of Physics Students Travel Award (December 2016)
- Maryland Space Grant Consortium Undergraduate Scholarship (2016-17)
- Arthur and Catherine B. Adel Scholarship for Physics (2015-16, 2016-17)
- Francis Bacon Science Writing Fellow (April 2016)

Employment

Department of Physics and Astronomy, Texas A&M University *August 2017 – Present*
Teaching Assistant
Duties are class dependent; so far include running a weekly astronomy lab with a monthly observing component, and grading of assignments and exams.

Department of Physics and Astronomy, Johns Hopkins University *September 2015 – May 2017*
Teaching Assistant
Duties included overseeing in-lecture problem solving and running recitation sections with a graduate student. Served as TA for Physics I and II.

Office of Academic Support, Johns Hopkins University *August 2014 – May 2017*
PILOT Leader, Peer-Led Team Learning (PILOT) Program
Duties included facilitating problem-solving sessions for a group of five to ten students and creating and solving problem sets for sessions with other PILOT leaders. Ran sessions for Physics I and II.

Technical Skills

Proficient in Python, IDL, MATLAB, the Bash shell, and LaTeX. Comfortable with using Linux, Windows, and OS X systems.

Professional Affiliations

- American Physical Society
- American Astronomical Society
