

Saxon Stockton

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Education

Texas Christian University

PHD PHYSICS, SPECIALIZATION ASTROPHYSICS

Fort Worth, TX, USA

2025 - Current

Utah Valley University

BS PHYSICS, MINOR MATHEMATICS

Orem, Utah, USA

2019 - 2023

Professional Experience

- 2025- **Teaching Assistant**, Physics and Astronomy Department, Texas Christian University
- 2023-2025 **Adjunct Instructor**, Physics Department, Utah Valley University
- 2022 **NSF Physics REU**, University of Michigan
- 2021-2022 **Undergraduate Physics Department Representative**, Utah Valley University
- 2019-2020 **Physics Tutor**, Utah Valley University

Research Experience

University of Michigan - Department of Astronomy

Ann Arbor, MI

ADVISOR: DR. ERIC BELL

June 2022 - 2023

- Project: "Islands no more: the important mergers of nearby galaxies and their effects."
Searching for faint satellites around Andromeda. Used number density variations of RGB stars to identify satellite candidates in the PAndAS survey. Reduced data and created images using follow-up observations from the Gemini Observatory. In the process of creating catalogs from the images and performing photometric analysis of candidates. Now working with Hubble Space Telescope follow-up observations.

Utah Valley University - Department of Physics

Orem, UT

ADVISER: DR. CHRISTIAN DRAPER

May 2020 - 2023

- Project: "Emission Expedition: A Spectral Survey of 800,000 Galaxies."
Observed changes in galaxy spectra with redshift. Used the spectra of 792503 galaxies from data release 16 of the Sloan Digital Sky Survey. By binning the galaxies into redshift ranges, I looked at how the fraction of galaxies exhibiting emission lines for 17 spectral lines in the visible range changed with redshift. I also calculated star formation rates at different redshifts and used BPT diagrams to diagnose the origin of emission lines.

Teaching Experience

- 2 x **PHYS 10154 - Physics 1 Lab**, Teaching Assistant
- 3 x **ASTR 1040 - Introduction to Astronomy**, Lecturer
- 1 x **PHSC 1000 - Survey of Physical Sciences**, Lecturer
- 7 x **PHYS 2215 - Physics for Scientists and Engineers 1 Lab**, Adjunct Instructor
- 8 x **PHYS 2015 - College Physics 1 Lab**, Adjunct Instructor
- 1 x **PHYS 2025 - College Physics 2 Lab**, Adjunct Instructor

Awards, Fellowships, & Grants

- 2022 **Student Excellence Award**, College of Science, UVU
- NSF REU**, University of Michigan
- NSF S-STEM Scholarship**, Physics Department, UVU
- Utah NASA Space Grant**, Utah NASA Space Grant Consortium
- SCULPT Grant**, College of Science, UVU
- Scholarly Activities SAC Grant**, College of Science, UVU
- Dean's List**, College of Science, UVU

- 2021 **NSF S-STEM Scholarship**, Physics Department, UVU
- Dean's List**, College of Science, UVU

- 2020 **NSF S-STEM Scholarship**, Physics Department, UVU
- Dean's List**, College of Science, UVU

Outreach & Professional Development

SERVICE AND OUTREACH

- 2020 - 2022 **Society of Physics Students**, UVU SPS President
- 2021 - 2022 **UVU Student Association**, Physics Department Representative
- 2022 **Highlighting Women in STEM**, UVUSA Planning Committee
- 2020 - 2022 **Club Rush**, Physics Club Representative
- 2022 **College of Science Open House**, Physics Department Representative
- 2022 **Future Science Student Day**, Physics Department Representative
- 2021 - 2022 **Science vs. Hollywood**, Physics Department Representative

DEVELOPMENT

Astropy Workshop, An AAS session focused on a crash course in Astropy. I became much more proficient with using Astropy and Jupyter Notebook.

PROFESSIONAL MEMBERSHIPS

Junior Member of the American Astronomical Society
Society of Physics Students

Publications

PUBLISHED

- [1] Jose Marco Arias, Eric F. Bell, Katya Gozman, In Sung Jang, **Stockton, Saxon**, Oleg Y. Gnedin, Richard D'Souza, Antonela Monachesi, Jeremy Bailin, David Nidever, and Roelof S. de Jong. **Andromeda XXXV: The Faintest Dwarf Satellite of the Andromeda Galaxy**. *The Astrophysical Journal Letters*, 982(1):L3, mar 2025.

Presentations

* *presenting author*

CONTRIBUTED PRESENTATIONS

- Stockton, Saxon***, Bell, Eric. 2022. Shine Faint like an Ultra Faint Dwarf Galaxy. REU Symposium 2022: University of Michigan Physics Department, Ann Arbor, Michigan.
- Stockton, Saxon***, Bell, Eric. 2022. Shine Faint like an Ultra Faint Dwarf Galaxy. Departmental seminar: Utah Valley University Physics Department, Orem, Utah.
- Stockton, Saxon***, Draper, Christian. 2022. Emission Expedition: A Spectral Survey of 800,000 Galaxies. American Astronomical Society 240, Pasadena, California.
- Stockton, Saxon***, Draper, Christian. 2022. Emission Expedition: A Spectral Survey of 800,000 Galaxies. Utah NASA Space Grant Consortium Poster Session, Logan, Utah.
- Stockton, Saxon***, Draper, Christian. 2022. Large Sample Analysis of Emission and Absorption Galaxies. Utah Conference for Undergraduate Research, St. George, Utah.
- Stockton, Saxon***, Draper, Christian. 2022. Large Sample Analysis of Emission and Absorption Galaxies. Departmental seminar: Utah Valley University Physics Department, Orem, Utah.