

TAWNY SIT

Graduate Student in Astronomy, The Ohio State University
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EDUCATION

The Ohio State University Ph.D. Student in Astronomy	Columbus, OH August 2022 - Present
California Institute of Technology B.S. Astrophysics	Pasadena, CA June 2020

AWARDS & HONORS

Graduate Enrichment Fellowship <i>The Ohio State University</i>	2023 - 2024
Distinguished University Fellowship <i>The Ohio State University</i>	2022 - 2023
Summer Undergraduate Research Fellowship <i>California Institute of Technology, Columbia University</i>	2019
Summer Undergraduate Research Fellowship <i>California Institute of Technology</i>	2018
Summer Undergraduate Research Fellowship <i>California Institute of Technology</i>	2017

PUBLICATIONS

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6. **Sit, T.** et al., “Chemical Cartography with APOGEE: Two-process Parameters and Residual Abundances for 288,789 Stars from Data Release 17,” submitted to *ApJ*, arXiv:2403.08067.
 5. Anand, S., et al. (including **Sit, T.**), “Collapsars as Sites of r-process Nucleosynthesis: Systematic Photometric Near-infrared Follow-up of Type Ic-BL Supernovae,” *ApJ*, 962, 68, doi:10.3847/1538-4357/ad11df.
 4. **Sit, T.** et al., “Long-rising Type II Supernovae in the Zwicky Transient Facility Census of the Local Universe,” *ApJ*, 959, 142, doi:10.3847/1538-4357/ad036f.
 3. Das, K. K., et al. (including **Sit, T.**), “Probing the low-mass end of core-collapse supernovae using a sample of strongly-stripped Calcium-rich Type IIb Supernovae from the Zwicky Transient Facility.” 2023, *ApJ*, 959, 12, doi:10.3847/1538-4357/acfeeb.
 2. Karambelkar, V., et al. (including **Sit, T.**), “Volumetric rates of Luminous Red Novae and Intermediate Luminosity Red Transients with the Zwicky Transient Facility.” 2023, *ApJ*, 948, 137, doi:10.3847/1538-4357/acc2b9.
 1. **Sit, T.** & Ness, M. K., “The Age Distribution of Stars in the Milky Way Bulge,” 2020, *ApJ*, 900, 4, doi:10.3847/1538-4357/ab9ff6.

PRESENTATIONS

Long-rising Type II Supernovae in the Zwicky Transient Facility Census of the Local Universe <i>Talk - American Astronomical Society Meeting 240</i>	June 2022, Pasadena, CA
The Age Distribution of Stars in the Milky Way Bulge <i>Talk - Caltech SURF Seminar Day</i>	October 2019, Pasadena, CA

Data-driven Methods of Measuring Stellar Compositions from Keck Spectroscopy

Talk - Caltech SURF Seminar Day

October 2018, Pasadena, CA

X-ray Spectral Analysis of NGC 1386

Talk - Caltech SURF Seminar Day

October 2017, Pasadena, CA

UNDERGRADUATE/POST-BACCALAUREATE RESEARCH EXPERIENCE

Assistant Research Technician

California Institute of Technology, Department of Astronomy

June 2021 - August 2022

Mansi Kasliwal

Post-baccalaureate Research

University of California, Santa Cruz (Remote)

July 2020 - June 2021

Raja Guhathakurta

Summer Undergraduate Research Fellowship

Columbia University, Department of Astronomy

June - August 2019

Melissa Ness

Summer Undergraduate Research Fellowship

California Institute of Technology, Department of Astronomy

June - August 2018

Evan Kirby

Summer Undergraduate Research Fellowship

California Institute of Technology, Department of Physics

June - August 2017

Murray Brightman, Fiona Harrison

TEACHING AND MENTORING

Academic Facilitator

Undergraduate Residential Summer Access (URSA) Program

May - August 2023

The Ohio State University

- Designed lesson plans, created materials, and taught eight 1-hour classes on introductory astronomy, physics, and Python programming and developing science identity to incoming freshmen
- Led incoming freshmen through a week-long research project culminating in a poster session at the end of the program

Primary Project Mentor

Science Internship Program

June - August 2021

UC Santa Cruz (Remote)

- Mentored two high school students in project to estimate measurement errors and calculate intrinsic variances of sources in Canada-France-Hawaii Legacy Survey Deep Field time-series photometry via statistical techniques and categorize variable sources for further analysis by level of intrinsic variability
- Poster presented at AAS 240 (June 2022) with students as lead authors

Rise Program Tutor

Caltech Y Rise Program

October 2017 - June 2020

California Institute of Technology

- Tutored local high school students in math and science, working consistently with one to two students throughout an academic year

OUTREACH

Planning Team

Caltech Science Olympiad Club

Fall 2017 - Spring 2020

California Institute of Technology

- Coordinated regional and state-level Science Olympiad tournaments in Southern California, with focus on organizing materials for for astronomy, physics, and planetary science events
- Wrote exams for astronomy-related events at both the middle and high school level
- Supervised individual events on tournament days