

Jiani Ding

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EDUCATION

- **University of California, Santa Cruz** Ph.D., Astrophysics (Expected 2024)
Advisor: Prof. Connie Rockosi
Thesis: Membership Probabilities of the Dwarf Galaxies and Milk-way Substructure Mapping
- **University of Arizona** B.S., Astronomy and Physics (Awarded 2017)
SUMMA CUM LAUDE

RESEARCH INTERESTS

- Near-field Cosmology, Milky Way Structures
- Large Sky Surveys, Data Mining, and Machine Learning
- Intergalactic Medium and Galaxy Evolution

SKILLS AND EXPERIENCES

- **Observational Experiences**
 - Ground-based Imaging: Bok/90Prime, LBT/LUCI
 - Ground-based Spectroscopy: MMT/Redchannel, MMT/Binospec, Shane/(inst),
 - Space Telescopes: *HST* (ACS, WFC3)
 - Large Sky Surveys: Commissioning for the DESI survey and the BASS survey
- **Coding and Data analysis**
 - Programming: C, Python
 - Machine Learning: Gaussian Process, Gaussian Mixture Model, Neural Networks
 - Software: IRAF, GALFIT, SExtractor, Photutils, MultiDrizzle, L^AT_EX

TELESCOPE PROPOSALS

- Probing Quasar Host Galaxies with Damped Lyman Alpha System as Coronagraph (**PI**)
 - Awarded two nights via UCO/Lick
- Nature of Mid-infrared Flares in Nearby Galaxies: Tidal disruption events or turn-on AGNs?
 - Awarded four nights via UCO/Lick

SELECTED TALKS

- **Conference Talks**
 - DESI Collaboration Meeting Jul 2023, Durham
Title: Measuring the Membership Probabilities of the Draco Dwarf Galaxy
 - DESI Collaboration Meeting Jun 2022, Berkeley
Title: Probing Formation and Accretion History of the Milky Way through Halo Stars Pairwise Velocity Statistics
 - DESI Collaboration Workshop Dec 2019, Ohio
Title: Update progress on the DLA Catalog for DESI using CNN algorithm

- DESI Collaboration Meeting Jul 2019, Berkeley
Title: Using CNN to Build up a DLA Catalog for DESI
- Inter[Stellar and Galactic] Medium Conference Sep 2018, IPMU
Title: A Semi-Empirical Model of the IGM's Complete HI Lyman Series
- **Seminars**
- Inter[Stellar and Galactic] Medium Program of Studies Nov 2016, UCSC
Title: CIII Emission Lines from Galaxies in the Early Universe

TEACHING AND MENTORING

- **Teaching**
 - Teaching Assistant, Introduction to Cosmology 2018
 - Teaching Assistant, Exploring the Universe with Astronomical Data 2018
 - Teaching Assistant, The Space-Age Solar System 2019
 - Teaching Assistant, Introductory Astronomy: Planetary Systems 2022
 - Teaching Assistant, Advanced Astronomy Laboratory 2023
- **Mentoring**
 - Mentor of Jose Monzon (undergraduate student at UCSC) 2019
 - Project: Measuring the opacity of neutral hydrogen in the intergalactic medium using rest-frame UV spectra of distant galaxies

OUTREACH & DEI ACTIVITIES

- **Women in Physics and Astronomy** UCSC Department of Astronomy, 2018 – present
 - Active member in the WiPA UCSC
- **DEI Committee** UCSC Department of Astronomy, 2023 – Present
 - Active Member of the DEI Committee for this academic year
- **Member of LUMA** UCSC Department of Astronomy, 2017 – Present
 - Active Member of the League of Underrepresented Minoritized Astronomers (LUMA)
- **“Ask an Astronomer” Lead Representative** UC Observatories, 2018 – Present
 - Answered astronomy questions submitted by the public
 - Answered questions from the high school students about research
- **Time Step Meeting** Steward Observatory, 2015-2016
 - Being a member in “Time Step,” a group focusing on professional development for undergraduates in STEM fields, also giving special support to students represented minorities.
 - Giving the talk “How to Study and Enjoy Life as a Astronomy and Physics Double Major”.

SERVICE

- **UCSC Admission Committee** UCSC, 2019
 - Review graduate school application materials and provide advice in the admission board.
- **Referee Service**
 - Referee of A&A

HONORS AND AWARDS

- Dean's List with Distinction, College of Science, University of Arizona 2014
- Academic Year Highest Academic Distinction, College of Science, University of Arizona 2015
- Galileo Circle Scholarship, College of Science, University of Arizona 2015, 2016
- Regents' Fellowship UCSC, 2017
- NR Tuition Fellowship UCSC, 2017

PUBLICATION

- **J. Ding**, Z. Cai, X. Fan, et al. *Constraining C iii] Emission in a Sample of Five Luminous $z = 5.7$ Galaxies*, ApJL, 838, L2 (2017)
- **J. Ding**, Z. Cai, J. Prochaska, et al. *Deep Hubble Space Telescope Imaging on an Extended Ly α Emission of a QSO at $z = 2.19$ with Damped Lyman Alpha System as a Natural Coronagraph*, ApJL, 889, L12 (2020)
- **J. Ding**, P. Madau, J. Prochaska. 2023. *Measuring the effective optical depth for the first two HI Lyman series*, submitted
- **J. Ding**, C. Rockosi, T. Li. 2023. *Membership probabilities from the DESI EDR data through using a Gaussian Mixture Model*, to be submitted soon
- B. Wang, J. Zou, Z. Cai, J. Prochaska, Z. Sun, **J. Ding**, et al. 2022. *Deep Learning of DESI Mock Spectra to Find Damped Ly α Systems*, submitted
- S. Zou, L. Jiang, Z. Cai, ..., **J. Ding**, et al. 2023. *DESI survey validation data in the COSMOS/HSC field: Cool gas trace main sequence star-forming galaxies at the cosmic noon*, submitted
- Adame, AG and Aguilar, J and Ahlen, S, ..., **J. Ding**, et al. 2023. *The Early Data Release of the Dark Energy Spectroscopic Instrument*, submitted
- Adame, AG and Aguilar, J and Ahlen, S, ..., **J. Ding**, et al. 2023. *Validation of the Scientific Program for the Dark Energy Spectroscopic Instrument*, submitted
- C. Andrew, K. Sergey, P. Carlos Allende, ..., **J. Ding**, et al. 2023. *Overview of the DESI Milky Way Survey*, submitted
- Z. Sheng, T. Wang, N. Jiang, **J. Ding**, et al. 2019. *Initial Results from a Systematic Search for CHANGING-LOOK Active Galactic Nuclei Selected Via Mid-Infrared Variability*, submitted to ApJ
- P. H. T. Tam, P. S. Pal, Y. D. Cui, ..., **J. Ding**, et al. 2019. *Multi-wavelength observations of the BL Lac object Fermi J1544-0649: one year after its awakening*, submitted to MNRAS
- J. Yang, X. Fan, X. Bing, ..., **J. Ding**, et al. *Discovery of 16 New $z \sim 5.5$ Quasars: Filling in the Redshift Gap of Quasar Color Selection.*, AJ, 153, 184-193 (2017)
- F. Wang, X. Fan, J. Yang, ..., **J. Ding**, et al. *First Discoveries of $z > 6$ Quasars with the Decam Legacy Survey and Ukirt Hemisphere Survey.*, ApJ, 839, 27-34 (2017)