Pranjal R. S.

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Steward Observatory, University of Arizona
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Education

- **University of Arizona** *2019 - Current*
  Tucson, AZ

  PhD candidate in Astronomy
  Advisor: Dr. Elisabeth Krause

- **Indian Institute of Technology Bombay** *2015-2019*
  Mumbai, India

  Bachelor of Technology in Engineering Physics (*with Honors*)

Fellowships and Awards

- **TAP Travel Award** *2024*
  Theoretical Astrophysics Program, University of Arizona
- **University of Arizona - CNRS PhD Fellowship** *2021-2024*
  University of Arizona
- **Newton-Bhabha Fund** *Summer 2018*
  Univerisity of Glasgow
  - *Project title*: Using machine learning methods for burst gravitational wave detection
- **Summer Student Program** *Summer 2017*
  Nicolaus Copernicus Astronomical Center, Warsaw
  - *Project title*: Studying quasi-periodic oscillations using GRMHD simulations

Scientific Presentations

- *Poster*: Statistical Challenges in 21st century cosmology, Chania, May 2024
- *Contributed Talk*: Roman PIT meeting, Pasadena, Oct 2024
- *Contributed Talk*: Understanding cosmological observations, Benasque, July 2023
- *Invited Talk*: IAP graduate student seminar, Paris, Nov 2022
- *Invited Talk*: IUCAA seminar, Pune, April 2022

Publications (ADS)

First Author

1. **Pranjal R. S.**, Elisabeth Krause, et al. (2024). Impact of cosmology dependence of baryonic feedback in weak lensing *In prep.*
2. **Pranjal R. S.**, Eric Huff, et al. (2024). Kinematic Lensing Inference II: Cluster Lensing with $\mathcal{O}(1)$ Galaxies *arXiv:2409.08367, Submitted to MNRAS*
3. **Pranjal R. S.**, Elisabeth Krause, et al. (2023). Kinematic Lensing Inference I: Characterizing Shape Noise with Simulated Analyses *MNRAS, 524, 3324 (2023)*
4. **Pranjal R. S.**, Dennis Zaritsky, et al. (2019). Ultra-diffuse Galaxies at Ultraviolet Wavelengths *The Astronomical Journal, 157, 212 (2019)*

Contributing Author

1. Emma Ayçoberry, **Pranjal R. S.**, et al. (2024). Testing the thermal Sunyaev-Zel'dovich power spectrum of a halo model using hydrodynamical simulations *arXiv:2409.11472, Submitted to Astronomy & Astrophysics*
2. Xiao Fang, Elisabeth Krause, Time Eifler, Simone Ferraro, Karim Benabed, **Pranjal R. S.**, et al. (2024). Cosmology from weak lensing, galaxy clustering, CMB lensing, and tSZ - I. 10 × 2pt modelling methodology *MNRAS 527, 9581 (2024)*
3. Jennifer Kadowaki, Dennis Zaritsky, R. L. Donnerstein, **Pranjal R. S.**, et al. (2021). On the Properties of Spectroscopically Confirmed Ultra-diffuse Galaxies across Environments *The Astrophysical Journal 923, 257 (2021)*

4. V. Gayathri, Dixeena Lopez, **Pranjal R. S.**, et al. (2020). Enhancing the sensitivity of transient gravitational wave searches with Gaussian mixture models *Physical Review D 102, 104023 (2020)*

Co-author

1. Yu-Hsiu Huang, Elisabeth Krause, et al. (**Pranjal R. S.** 5 of 6) (2024). Astrophysical systematics in kinematic lensing: Quantifying an intrinsic alignment analog *Physical Review D 110, 043509*
2. Jiachuan Xu, Tim Eifler, et al. (**Pranjal R. S.** 7 of 8) (2024). Kinematic Lensing with the Dark Energy Spectroscopic Instrument – Probing structure formation at very low redshift *arXiv:2407.20867, Submitted to Physical Review D*
3. Jiachuan Xu, Tim Eifler, et al. (**Pranjal R. S.** 4 of 7) (2023). Kinematic lensing with the Roman Space Telescope *MNRAS 519, 2535 (2023)*

REFERENCES

1. **Elisabeth Krause**
   Steward Observatory, University of Arizona
   Email: krausee@arizona.edu
2. **Eric Huff**
   Jet Propulsion Laboratory
   Email: eric.m.huff@jpl.nasa.gov
3. **Karim Benabed**
   Institut d'astrophysique de Paris
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