

Kaila Ronayne

✉kaila_ronayne@tamu.edu

 (LinkedIn)  (Github) (Personal Website) (ADS Library)

RESEARCH INTERESTS

Observational astronomy, high z universe, galaxy-formation, galaxy cluster, protoclusters, star formation, star formation history, galaxy evolution, active galactic nuclei (AGN), polycyclic aromatic hydrocarbons (PAHs)

EDUCATION

PhD Astronomy

Astrostatistics Track

Texas A&M University, College Station, TX

Advisor: Casey Papovich

Expected Graduation: Aug. 2028

M.S. Astronomy

Texas A&M University, College Station, TX

Advisor: Casey Papovich

Graduated: May 2025

B.S. Aerospace Engineering

Minors in Astrophysics and Mathematics

Texas A&M University, College Station, TX

Graduated: Dec. 2021

RESEARCH APPOINTMENTS

Graduate Student

Texas A&M University

Department of Physics and Astronomy

Advisor: Casey Papovich

Jan. 2022 - Present

Assistant Researcher

Texas A&M University

Department of Physics and Astronomy

Advisors: Casey Papovich and Guang Yang

Aug. 2020 - Dec. 2021

Assistant Researcher

Texas A&M University

Department of Aerospace Engineering

Research Group: SpaceCRAFT

Advisor: Gregory E. Chamitoff

May 2018 - May 2019

INTERNSHIPS

Airworthiness Intern

Lockheed Martin, Fort Worth, TX

- Used software skills to optimize current data analysis methods. Aim was to improve previous methods of data processing to increase efficiency of work on the airworthiness team, as well as the chief engineers office.

May 2021 – Dec. 2021

PUBLICATIONS (H-INDEX=5)

First Author

- CEERS: 7.7 μm PAH Star Formation Rate Calibration with JWST MIRI; Ronayne et al. 2024

Co-Author

- CEERS: Spatially Resolved UV and mid-IR Star Formation in Galaxies at $0.2 < z < 2.5$ The Picture from the Hubble and James Webb Space Telescopes; [Shen et al. 2023](#)
- CEERS: Increasing Scatter along the Star-Forming Main Sequence Indicates Early Galaxies Form in Bursts; [Cole et al. 2023](#)
- The HST–Hyperion Survey: Grism Observations of a $z \sim 2.5$ Proto-Supercluster; [Forrest et al. 2025](#)
- The HST–Hyperion Survey: Companion Fraction and Overdensity in a $z \sim 2.5$ Proto-supercluster; [Giddings et al. 2025](#)
- MEGA Mass Assembly with JWST: The MIRI EGS Galaxy and AGN Survey; [Brakhaus et al. 2025](#)
- AGNBoost: A Machine Learning Approach to AGN Identification with JWST/NIRCam+MIRI Colors and Photometry; [Hamblin et al. 2025](#)

Contributing Author

- A Long Time Ago in a Galaxy Far, Far Away: A Candidate $z \sim 14$ Galaxy in Early JWST CEERS Imaging; [Finkelstein et al. 2022](#)
- A dusty starburst masquerading as an ultra-high redshift galaxy in JWST CEERS observations; [Zavala et al 2022](#)

HONORS AND AWARDS

Avilés-Johnson Doctoral Fellowship <i>Awarded \$184,733</i>	Jan. 2022–Aug. 2027
NASA/ Texas Space Grant Consortium Fellowship <i>Awarded \$5,000</i>	2022–2023
Graduate Student Research and Presentation Travel Award <i>Awarded \$1,000</i>	Feb. 2025

AWARDED TIME/ARCHIVAL FUNDING

(CO-I) JWST Cy4 GO-7957 <i>MEGA Spectra: Black Hole Growth and ISM Conditions at Cosmic Noon</i>
(CO-I) JWST Cy3 AR-5075 <i>Unveiling the Morphological Evolution of Galaxies in Protoclusters: Insights from JWST Imaging</i>
(CO-I) JWST Cy2 GO-3794 <i>MEGA Mass Assembly at Cosmic Noon: MIRI EGS Galaxy and AGN Survey</i>

CERTIFICATIONS

An Introduction to Evidence-Based Undergraduate STEM Teaching <i>Certification of Completion (Certification Link)</i>	Apr. 2024
Advanced Teaching Practices: Research-Driven Approaches for Higher Education <i>CIRTL Practitioner (Certification Link)</i>	Apr. 2025
Mastery Certificate in Instruction & Assessment <i>Certification of Completion (Certification Link)</i>	Apr. 2025

PRESENTATIONS

Talks

• Texas A&M Astro-symposium	Aug. 2022
• Astronomy on Tap - Bryan College Station (AoT BCS)	Oct. 2022
• CEERS Team Meeting	May 2023
• Texas A&M Astro-symposium	Aug. 2023
• Astronomy on Tap - Bryan College Station (AoT BCS)	Feb. 2024
• STSci Spring Symposium	Apr. 2024
• CEERS Team Meeting	May 2024
• Brazos Valley Astronomy Club	June 2024

- Texas A&M Astro-symposium Aug. 2024
- *(Invited)* TAMU Department of Atmospheric Sciences Seminar Series Sept. 2024
- Astronomy on Tap - Bryan College Station (AoT BCS) Apr. 2025
- The Inagural Cosmic Frontier Center Conference May 2025
- Texas A&M Astro-symposium Aug. 2025

Posters

- Bashfest Symposium at University of Texas at Austin Oct. 2023
- American Astronomical Society (AAS) 243rd meeting Jan. 2024
- STSci Spring Symposium Apr. 2024
- Crisol 2025: Galaxy Origins in the JWST Era May 2025

COLLABORATIONS

Cosmic Evolution Early Release Science (**CEERS**) Survey, JWST/MIRI EGS Galaxy and AGN (MEGA) Survey, Charting Cluster Construction with VUDS and ORELSE (**C3VO**) Survey

LEADERSHIP

MAGIC* Coordinator Aug. 2023–Nov. 2024
Astronomy on Tap - Bryan College Station - Treasurer Aug. 2022–Nov. 2024

MENTORSHIP/OUTREACH

MAGIC* Graduate Student Mentor Aug. 2022– Nov.2024
Adopt-a-Physicist[†] Oct. 2024–

TEACHING

Teaching Assistant

- INTRO GALAXIES AND COSMOLOGY Spring 2022
- OVERVIEW OF MODERN ASTRONOMY Fall 2022–Spring 2023
- STARS AND EXTRASOLAR PLANETS Fall 2023

PROGRAMMING

Fluent:Python, LaTeX, Linux, Unix

Experience: MATLAB, Robot C, Visual Basic for Applications (VBA), bash, R, HTML, Image Reduction and Analysis Facility (IRAF)

*Mentoring And Advising Graduates In An Inclusive Community (MAGIC)

[†]See more about Adopt-a-Physicist