Aimee Schechter

aimee.schechter@colorado.edu

Ph.D. Candidate / CU Boulder

www.astronaimee.com

EDUCATION

| PhD in Astrophysics, University of Colorado Boulder | Expected Dec 2025 |
|---------------------------------------------------------------------------|-------------------|
| Master of Astrophysics, University of Colorado Boulder | Dec 2021 |
| Bachelor of Science, Astronomy, Honors, The University of Texas at Austin | May 2019 |
| Bachelor of Science, Physics, The University of Texas at Austin | May 2019 |
| Study Abroad, University of Sussex | Spring 2017 |

AWARDS

PI: Chandra Cycle 26 Archival Proposal

Fall 2024

Recommended for funding by the Scientific Peer Review panel. No archival funding available for Cycle 26 awards.

| CU APS Department Astrophysics Graduate Fellowship | Spring 2023 |
|--------------------------------------------------------------------|-------------|
| NSF Graduate Research Fellowship Program Honorable Mention | Spring 2021 |
| UT College of Natural Sciences Dean's Honored Graduate | Spring 2019 |
| UT College of Natural Sciences Distinction in Research | Spring 2019 |
| UT College of Natural Sciences Distinction in Service & Leadership | Spring 2019 |
| Department of Astronomy Karl G. Henize Memorial Scholarship | Spring 2019 |
| Undergraduate AAS Chambliss Award Honorable Mention | Spring 2019 |
| University of Texas Undergraduate Research Fellowship | Fall 2018 |
| John W. Cox Scholarship for Advanced Studies in Astronomy | Summer 2018 |

PUBLICATIONS

Toward Complete Merger Identification at High Redshifts with Deep Learning, Schechter, A., Nevin, R., Ćiprijanović, A., Shen, X., Comerford, J. & Stemo, A., in prep.

Enhanced Star Formation and Black Hole Accretion Rates in Galaxy Mergers in IllustrisTNG50, Schechter, A., Genel, S., Terrazas, B., Comerford, J., Hartley, A., Sommerville, R., Nevin, R., Simon, J., & Nelson, E., The Astrophysical Journal, submitted

Examining the Gas Outflow for a Typical Dusty Star-Forming Galaxy at z=2, Schechter, A. & Casey, C., Res. Notes AAS 2018 2 228

"Beads-on-a-string" Star Formation Tied to One of the Most Powerful Active Galactic Nucleus Outbursts Observed in a Cool-core Galaxy Cluster, Omoruyi, O., Tremblay, G. R., Combes, F., Davis, T. A., Gladders, M. D., Vikhlinin, A., Nulsen, P., Kharb, P., Baum, S. A., O'Dea, C. P., Sharon, K., Terrazas, B. A., Nevin, R., Schechter, A. L., Zuhone, J. A., McDonald, M., Dahle, H., Bayliss, M. B., Connor, T., Florian, M., Rigby, J. R., & Vaddi, S., The Astrophysical Journal, 2024, 963, 1.

The first quiescent galaxies in TNG300, Hartley, A. I., Nelson, E. J., Suess, K. A., Garcia, A. M., Park, M., Hernquist, L., Bezanson, R., Nevin, R., Pillepich, A., Schechter, A. L., Terrazas, B. A., Torrey, P., Wellons, S., Whitaker, K. E., & Williams, C. C., Monthly Notices of the Royal Astronomical Society, 2023, 522, 3138.

A Catalog of 204 Offset and Dual Active Galactic Nuclei (AGNs): Increased AGN Activation in Major Mergers and Separations under 4 kpc, Stemo, A., Comerford, J. M., Barrows, R. S., Stern, D., Assef, R. J., Griffith, R. L., & Schechter, A., The Astrophysical Journal, 2021, 923, 36.

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| Selected Talks and Posters | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| T: Identifying Galaxy Mergers and Their Role in Star Formation and AGN Activi Dancing In The Dark, Sexten Center for Astrophysics | ty Across Cosmic Time June 2025 |
| T: The Uses and Limitations of CNNs for Galaxy Merger Identification Cosmic Horizons Conference, NSF-Simons Cosmic Al Institute | May 2025 |
| T: CANDELS Merger Identification with IllustrisTNG50 Using a Convolutional Data Driven Galaxy Evolution, KITP-CCA | Neural Network Jan 2023 |
| T: How to Identify Galaxy Mergers in CANDELS with IllustrisTNG50 Galaxies and AGN Seminar, STScl | Sept 2021 |
| T: Merging galaxies in HST and JWST: An interpretable suite of CNNs for idea understanding merger features Hernquist Group | ntifying and Oct 2021 |
| T: How to Identify Galaxy Mergers in CANDELS with IllustrisTNG50 Clash of the Titans, Lorentz Center Workshop | Mar 2021 |
| P: Examining the Gas Outflow for a Typical Dusty Star-Forming Galaxy at $z=2$ Conference for Undergraduate Women in Physics | Jan 2019 |
| P: Examining the Gas Outflow for a Typical Dusty Star-Forming Galaxy at $z=2$ 233 rd Meeting of the American Astronomical Society | Jan 2019 |
| T: Examining the Gas Outflow for a Typical Dusty Star-Forming Galaxy at $z=2$ Texas Astronomy Undergraduate Research Symposium | Oct 2018 |
| RESEARCH EXPERIENCE | |
| CANDELS Merger Identification with IllustrisTNG50 CU Boulder, with Prof. Julie Comerford and Dr. Rebecca Nevin | Jan 2020 — Present |
| Star Formation and Black Hole Accretion in Galaxy Mergers in TNG50 CU Boulder CCA, with Dr. Rachel Somerville, Dr. Shy Genel, and Prof. Bryan Terraza | as Aug 2022 — Jun 2025 |
| Mapping Dust Emission in M101 to Improve Precision Cosmology UT Austin, with Prof. Caitlin Casey | Oct 2018 — Dec 2019 |
| Examining the Gas Outflow for a Typical Dusty, Star-Forming Galaxy at $z=2$ UT Austin, with Prof. Caitlin Casey | Aug 2017 — Sep 2018 |
| Analyzing the Cooling Tracks of Extremely Low Mass White Dwarfs UT Austin, with Dr. Mike Montgomery | Aug 2016 — Dec 2016 |
| Type II Supernovae Simulation UT Austin, with Dr. Mike Montgomery | Mar 2016 — Jun 2016 |
| Teaching Experience | |
| Lecture TA, ASTR 2030 Black Holes Lecture TA, ASTR 1200 Stars and Galaxies Lab TA ASTR 1010 Introductory Astronomy I | Fall 2024 Spring 2020, Fall 2020 Fall 2019 |

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OUTREACH

Lead Facilitator and Treasurer

Jul 2020 — Jul 2022

Science Under the Dome, Fiske Planetarium, CU Boulder

- Fundraise and manage finances for the organization
- Run auditions for future speakers
- Provide feedback to speakers on visuals, content, and public speaking

Undergraduate Women in Physics, UT Austin

May 2018 — May 2019

- Organized speakers and activities for weekly meetings
- Worked with department to improve undergraduate curriculum and department culture
- Created support system for underrepresented people in the department

Outreach Coordinator Aug 2017 — Sep 2018

Undergraduate Women in Physics, UT Austin

- Planned events and coordinated volunteers
- Set up demos and explained complex physics to the public

Program Ambassador/Member

Aug 2015 — May 2019

Women in Natural Sciences Program, UT Austin

- Selected based on academic achievement and commitment to the community
- Represent the WINS Program at College events
- Tutored fifth grade student in reading comprehension and success strategies
- Mentored an incoming WINS student (August 2018-May 2019)

CU ASTROPHYSICAL AND PLANETARY SCIENCES DEPARTMENT COMMITTEES

Lead Graduate Representative, Friday Lunch Seminar Organizing Committee **Graduate Representative**, Graduate Curriculum and Concerns Committee

Fall 2021 — Spring 2024

Fall 2021 — Spring 2022 **Graduate Representative**, Undergraduate Curriculum and Concerns Committee

Fall 2019 — Spring 2021