

# Aimee Schechter

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Ph.D. Candidate / CU Boulder

[www.astronaimee.com](http://www.astronaimee.com)

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## EDUCATION

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

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## AWARDS

<b>PI: Chandra Cycle 26 Archival Proposal</b>	Fall 2024
<i>Recommended for funding by the Scientific Peer Review panel. No archival funding available for Cycle 26 awards.</i>	
<b>CU APS Department Astrophysics Graduate Fellowship</b>	Spring 2023
<b>NSF Graduate Research Fellowship Program Honorable Mention</b>	Spring 2021
<b>UT College of Natural Sciences Dean's Honored Graduate</b>	Spring 2019
<b>UT College of Natural Sciences Distinction in Research</b>	Spring 2019
<b>UT College of Natural Sciences Distinction in Service &amp; Leadership</b>	Spring 2019
<b>Department of Astronomy Karl G. Henize Memorial Scholarship</b>	Spring 2019
<b>Undergraduate AAS Chambliss Award Honorable Mention</b>	Spring 2019
<b>University of Texas Undergraduate Research Fellowship</b>	Fall 2018
<b>John W. Cox Scholarship for Advanced Studies in Astronomy</b>	Summer 2018

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## 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., Somerville, 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 Activity Across Cosmic Time**  
*Dancing In The Dark, Sexten Center for Astrophysics* June 2025
- T: The Uses and Limitations of CNNs for Galaxy Merger Identification**  
*Cosmic Horizons Conference, NSF-Simons Cosmic AI Institute* May 2025
- T: CANDELS Merger Identification with IllustrisTNG50 Using a Convolutional Neural Network**  
*Data Driven Galaxy Evolution, KITP-CCA* Jan 2023
- T: How to Identify Galaxy Mergers in CANDELS with IllustrisTNG50**  
*Galaxies and AGN Seminar, STScI* Sept 2021
- T: Merging galaxies in HST and JWST: An interpretable suite of CNNs for identifying and understanding merger features**  
*Hernquist Group* 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<sup>rd</sup> 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

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## 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 Terrazas* 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

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## TEACHING EXPERIENCE

- Lecture TA**, ASTR 2030 Black Holes Fall 2024
- Lecture TA**, ASTR 1200 Stars and Galaxies Spring 2020, Fall 2020
- Lab TA** ASTR 1010 Introductory Astronomy I 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

### President

May 2018 — May 2019

*Undergraduate Women in Physics, UT Austin*

- 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)

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## CU ASTROPHYSICAL AND PLANETARY SCIENCES DEPARTMENT COMMITTEES

**Lead Graduate Representative**, Friday Lunch Seminar Organizing Committee

Fall 2021 — Spring 2024

**Graduate Representative**, Graduate Curriculum and Concerns Committee

Fall 2021 — Spring 2022

**Graduate Representative**, Undergraduate Curriculum and Concerns Committee

Fall 2019 — Spring 2021