

Aimee Schechter

aimee.schechter@colorado.edu

Ph.D. Candidate / CU Boulder

EDUCATION

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

AWARDS

Chandra Cycle 26 Archival Proposal	Fall 2024
<i>Recommended for funding by the Scientific Peer Review panel. No archival funding available for Cycle 26 awards.</i>	
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., 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.

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 from cosmic coffee hour to cosmic brunch , Hernquist Group	Oct 2021
T: How to Identify Galaxy Mergers in CANDELS with IllustrisTNG50 , Clash of the Titans, Lorentz Center Workshop	Mar 2021

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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 $z=2$, 233rd 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 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

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

OUTREACH AND LEADERSHIP

Lead Facilitator and Treasurer

Science Under the Dome, Fiske Planetarium

Jul 2020 — Present

CU Boulder

- Fund raise and handle finances for the organization
- Run auditions for future speakers
- Provide feedback for speakers on visuals, content, and public speaking

President

Undergraduate Women in Physics

May 2017 — May 2018

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

Undergraduate Women in Physics

Aug 2017 — Sep 2018

UT Austin

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

Program Ambassador/Member

Women in Natural Sciences Program

Aug 2015 — May 2019

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