

# Tatsuya Akiba

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## Employment

2026 – Present      Postdoctoral Researcher, UCLA  
2025 – 2026        Postdoctoral Researcher & Instructor, CU Boulder

## Education

Aug 2025            *Ph.D.*, Astrophysical & Planetary Sciences  
University of Colorado, Boulder  
*Thesis Title: Eccentric Stellar Dynamics near Massive Black Holes  
in the Era of Transients and Gravitational Waves*

Aug 2022            *M.S.*, Astrophysical & Planetary Sciences  
University of Colorado, Boulder

Aug 2019            *B.S.*, Physics (Honors) & Mathematics (Honors); *Valedictorian*  
Truman State University

## Honors and Awards

2025                Graduate Instructor Teaching Excellence Award (CU Boulder)

2024                Richard Nelson Thomas Award (JILA)  
Dissertation Completion Fellowship (CU Boulder)

2023                Carl Hansen Memorial Fellowship (CU Boulder)

2022                Chance Irick Cooke Fellowship (CU Boulder)

2021                Raynor L. Duncombe Student Research Prize (DDA)  
Award for Excellence in Teaching (CU Boulder)

2019                Outstanding Student in Physics (Truman)

2018                Dr. Lanny C. Morley Scholarship (Truman)  
Dr. Robert and Harlene Bailey Scholarship (Truman)

2017                TruScholars Research Award (Truman)  
Dr. Robert Peavler Memorial Scholarship (Truman)  
Dr. Wray and Helen Rieger Scholarship (Truman)  
Dr. Eugene W. Smith Memorial Scholarship (Truman)  
Mr. and Mrs. Robert Lisle Walker Scholarship (Truman)

2016                Duane and Donna Norman Hicks Scholarship (Truman)

2015                President's Honorary Scholarship (Truman)

## Refereed Publications

10. Tahmasebzadeh, et al. incl. **Akiba** (2026); *ApJ Letters*, 1001:L14  
*JWST Observations of the Double Nucleus in NGC 4486B: Possible Evidence for a Recent Binary SMBH Merger and Recoil*
9. **Akiba**, Naoz, & Madigan (2025); *ApJ Letters*, 987:L27  
*On the Formation of S-stars from a Recent Massive Black Hole Merger in the Galactic Center*
8. Tahmasebzadeh, et al. incl. **Akiba** (2025); *ApJ Letters*, 989:L42  
*A JWST View of the Overmassive Black Hole in NGC 4486B*
7. Gao, Boehholt, Panda, **Akiba**, & Toonen (2025); *MNRAS*, 543:445  
*Tertiary Tides with Eccentric Orbits*
6. **Akiba**, McIntyre, & Madigan (2024); *ApJ Letters*, 966:L4  
*Tidal Disruption of Planetesimals from an Eccentric Debris Disk Following a White Dwarf Natal Kick*; associated press release & podcast
5. Bright, **Akiba**, & Madigan (2024); *MNRAS Letters*, 534:L42  
*Counter-Rotation and Slow Precession in Aligned Eccentric Nuclear Disks due to Gravitational Wave Recoil Kicks*
4. **Akiba** & Madigan (2023); *ApJ*, 958:137  
*Anisotropic Star Clusters Around Recoiling Supermassive Black Holes*
3. **Akiba**, Dexter, et al. (2023); *ApJ*, 953:124  
*Reprocessing Models for the Optical Light Curves of Hypervariable Quasars from the Sloan Digital Sky Survey Reverberation Mapping Project*
2. **Akiba** & Madigan (2021); *ApJ Letters*, 921:L12  
*On the Formation of an Eccentric Nuclear Disk following the Gravitational Recoil Kick of a Supermassive Black Hole*; associated press release
1. **Akiba**, Neugarten, Ortmann, & Gokhale (2019); *JAAVSO*, 47:2  
*Multi-filter Photometric Analysis of W Ursae Majoris (W UMa) Type Eclipsing Binary Stars KID 11405559 and V342 Boo*

## Research Computing Allocations

2024 – 2026 Alpine Supercomputer (CU Boulder); *700k CPU hours*  
2021 – 2022 Summit Supercomputer (CU Boulder); *384k CPU hours*

## Observing Proposals

2025 NRAO General Observer  
“An Update to the Galactic Center Reference Frame Using SiO  
Stellar Masers” (Co-I; J. Darling PI, VLA/26A-049)

## Invited Talks

2026 Galactic Nuclei Astrophysical Phenomena (GNAP26) [July]  
2025 University of Michigan (Extreme Astrophysics Seminar)  
University of Maryland (CTC Seminar)  
Carnegie Earth and Planets Laboratory  
2024 Stanford (KIPAC Seminar)  
University of Texas, Austin (WCAPP Seminar)  
2022 High Energy Astrophysics Division 19 (Pittsburgh, PA)  
Truman State University (Colloquium)

## Contributed Talks

2025 Princeton  
2024 NOIRLab/University of Arizona  
Caltech (TAPIR Seminar)  
UCLA (Galactic Center Seminar)  
UC Santa Barbara  
UC Berkeley  
CITA/University of Toronto (Gravitational Wave Seminar)  
Yale University  
Columbia University  
CIERA/Northwestern (Theory Seminar)  
University of Amsterdam  
Leiden Observatory  
Max Planck Institute for Astrophysics (SESTAS Seminar)  
Institute of Science and Technology Austria  
Tidal Disruption Events & Nuclear Transients (Crete, Greece)  
Tidal Disruption Events Conference (KITP, UC Santa Barbara)  
2022 Division on Dynamical Astronomy 53 (CCA, New York)  
2021 Division on Dynamical Astronomy 52, *Duncombe Prize Talk*

## Teaching

2024 – 2026	Instructor (CU Boulder)
Spring 2026	ASTR 3740: Cosmology and Relativity (~60 students) ASTR 1000: The Solar System (~150 students)
Fall 2025	ASTR 2040: The Search for Life in the Universe (~180 students) ASTR 2010: Modern Cosmology (~45 students)
Summer 2025	ASTR 2600: Intro to Scientific Computing (~20 students)
Spring 2025	ASTR 1000: The Solar System (~200 students)
Spring 2024	ASTR 2600: Intro to Scientific Computing (~25 students)
2021 – 2023	Lead Graduate Teacher Fellow (Center for Teaching & Learning)
2022	Graduate TA; ASTR 5720: Galaxies (CU Boulder)
2019	Graduate TA; ASTR 3510: Astronomical Observations (CU Boulder)

## Research Mentoring

2026 – Present	Kelly Sticca (undergraduate) Topic: Dynamical Growth of Lopsided Gravitational Potentials
2025 – Present	Nick Yurchak (undergraduate) Topic: Galactic Center S-stars from a Recent Merger of Sgr A*
2025 – Present	Gayathri Budamgunta (undergraduate) Topic: Revisiting Out-of-Plane Gravitational Wave Recoil Kicks
2024 – 2026	Adam Schroeder (undergraduate) Topic: Anisotropic Distribution of Hypervelocity Stars from Sgr A* <i>Undergraduate Research Opportunities Program Grant (2025)</i>
2024 – 2025	Kalvyn Adams (undergraduate) Topic: Simulating Tidal Disruption Events in $N$ -body Simulations <i>Now Ph.D. student at UCLA (since 2025)</i>
2023 – 2024	Tom Alexander (high school) Topic: Out-of-Plane Recoil Kicks on Massive Black Holes <i>now undergraduate student at CU Boulder (since 2024)</i>
2021 – 2023	Selah McIntyre (undergraduate) Topic: Polluted White Dwarfs from Eccentric Debris Disks <i>Associated publication &amp; Uplift Program Award (2023)</i>
2020 – 2022	Allie Christensen (undergraduate) Topic: Forming Eccentric Disks with Intermediate-Mass Black Holes <i>Magna cum laude honor's thesis (2022)</i>

## Peer Review

2023 – Present	Referee for Nature & ApJ Letters
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## **Community, Service, & Outreach**

2024 – Present	Friday Lunch Seminar Committee (CU Boulder) <i>once a week; about 15 speakers per semester; ~20–30 participants</i>
2024 – Present	Academic/Career Mentor (DDA)
2024	Longmont Astronomical Society Public Lecture (Longmont, CO)
2019 – 2022	McNair, CU-Prime, & Graduate Peer Mentor (CU Boulder)
2019 – 2021	Diversity, Equity, & Inclusion Committee (CU Boulder)
2019 – 2020	Graduate Curriculum & Concerns Committee (CU Boulder)

May 2026