Tatsuya Akiba

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Employment

Aug 2025 – present	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)
	L. Scott and Carol D. Ellis Scholarship (Truman)
2016	Duane and Donna Norman Hicks Scholarship (Truman)
2015	President's Honorary Scholarship (Truman)

*Invited & Contributed Talks

2025	*University of Michigan (Extreme Astrophysics Seminar)
	*University of Maryland (CTC Seminar)
	Princeton
	*Carnegie Earth and Planets Laboratory
2024	NOIRLab/University of Arizona
	Caltech (TAPIR Seminar)
	UC San Diego
	*Stanford (KIPAC Seminar)
	UCLA (Galactic Center Seminar)
	UC Santa Barbara
	UC Santa Cruz
	UC Berkeley
	CITA/University of Toronto (Gravitational Wave Seminar)
	Syracuse University (Gravitational Wave Seminar)
	Yale University
	Columbia University
	CIERA/Northwestern (Theory Seminar)
	University of Wisconsin, Madison (Exoplanet 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)
	*University of Texas, Austin (WCAPP Seminar)
2022	*High Energy Astrophysics Division 19 (Pittsburgh, PA)
	*Truman State University (Colloquium)
	Division on Dynamical Astronomy 53 (CCA, New York)
2021	Division on Dynamical Astronomy 52, *Duncombe Prize Talk*

Research Computing Allocations

2024 – present	Alpine Supercomputer; *700k CPU hours*
2021 – 2022	Summit Supercomputer; *384k CPU hours*

Peer Review

2023 – 2025	Referee for Nature Communications, Nature, and ApJ Letters

Research Mentoring

2024 – present	Adam Schroeder (undergraduate) Topic: Hypervelocity stars around massive black holes *Undergraduate Research Opportunities Program Grant (2025)*
2024 – 2025	Kalvyn Adams (undergraduate) Topic: Simulating tidal disruption events in N-body simulations *now Ph.D. student at UCLA (since 2025)*
2023 – 2024	Tom Alexander (high school) Topic: Out-of-plane recoil kicks on massive black holes *now undergraduate student at CU Boulder (since 2024)*
2021 – 2023	Selah McIntyre (undergraduate) Topic: Polluted white dwarfs from eccentric debris disks *associated publication & Uplift Program award (2023)*
2020 – 2022	Allie Christensen (undergraduate) Topic: Forming eccentric disks with intermediate-mass black holes *magna cum laude honor's thesis (2022)*

Teaching

2024 – present	Instructor (CU Boulder)
Fall 2025	ASTR 2040: The Search for Life in the Universe ($\sim$180 students) ASTR 2010: Modern Cosmology ($\sim$45 students)
Summer 2025	ASTR 2600: Scientific Computing ($\sim$20 students)
Spring 2025	ASTR 1000: The Solar System ($\sim$215 students)
Spring 2024	ASTR 2600: Scientific Computing ($\sim$25 students)
2023	Guest Lecturer; ASTR 3710: Planetary Dynamics (CU Boulder)
2021 – 2023	Lead Graduate Teacher Fellow (Center for Teaching & Learning)
2022	Graduate TA; ASTR 5720: Galaxies (CU Boulder)
2022	Guest Lecturer; ASTR 2030: Black Holes (CU Boulder)
2019	Graduate TA; ASTR 3510: Astronomical Observations (CU Boulder)

Community, Service, & Outreach

2024 – present	Friday Lunch Seminar Committee (CU Boulder) *once a week; about 15 speakers per semester; $\sim$20–30 participants*
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)
2019 – 2020	Sommers-Bausch Observatory Committee (CU Boulder)

Refereed Publications

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, Boekholt, 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

November 2025