

Joshua Bromley

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Education	University of Toronto, Department of Astronomy & Astrophysics PhD in Astronomy & Astrophysics, Aug 2024 - Present University of California, Berkeley B.A Astrophysics and Physics, Aug 2020 - May 2024
Publications	Waghmare, A.Y., Bromley, J. , Shan J.-Y., & Ma, E. Y. “Nonlinear Response of Microwave Impedance Microscopy” <i>Appl. Phys. Lett.</i> 126, 133505 (2025) https://doi.org/10.1063/5.0260999 Bromley, Joshua & Chiang, Eugene “Chaotic Winds From a Dying World: A One-Dimensional Map for Evolving Atmospheres” <i>MNRAS</i> , 521, 5746 (2023) https://doi.org/10.1093/mnras/stad932
Research	Yanqin Wu Group, UToronto Graduate Researcher, Apr 2025 - Present Project: Precession of Eccentric Binaries and their Circumbinary Disks Marta L. Bryan Group, UToronto Graduate Researcher, Aug 2024 - Present Project: Relationship Between Gas Giants and their Inner Companions Eric Y. Ma Lab, UC Berkeley Undergraduate Researcher, June 2023-Aug 2024 Project: Scaling Relationships in Nonlinear MIM Eugene Chiang Group, UC Berkeley Undergraduate Researcher, June 2022-May 2024 Project: Chaotic Evolution of Disintegrating Planets Project: Dynamical Origin of Uranus’s Rings Berkeley SETI Researcher Undergraduate Researcher, Feb 2021-May 2022 Project: Simulating technosignature transits Project: MCMC Fitting of anomalous transits
Teaching	Department of Astronomy & Astrophysics, UToronto TA, AST 201, Stars and Galaxies, Winter 2025 TA, AST 101 The Sun and its Neighbours, Fall 2024, 2025

Teaching (Cont'd)	Department of Astronomy, UC Berkeley TA, ASTRON 162 Planetary Astrophysics, Winter 2024 Curriculum Development Lead, ASTRON98 Python for Astronomers, Summer 2023 - 2024 Reader, ASTRON 160 Stellar Astrophysics , Fall 2023
	Department of Physics, UC Berkeley Reader, PHYSICS 105 Analytic Mechanics, Summer 2022 Reader, PHYSICS 77 Computational Methods in Physics, Summer 2022
	Student Learning Center, UC Berkeley Tutor, PHYSICS 5A Introductory Mechanics, Winter 2023 Tutor, PHYSICS 105 Analytic Mechanics, Fall 2022 Tutor, PHYSICS 5C Introductory Quantum and Thermo, Winter 2022
Awards	Department Ontario Graduate Scholarship International Cognate Spring 2025, CA\$ 5000 (OGS CA\$ 15000 for domestic students) UToronto Department of Astronomy & Astrophysics Entrance Award Fall 2024, CA\$ 5000
	UC Berkeley Astronomy Department Citation Spring 2024
	Berkeley Pi2 Summer Scholar Summer 2023, US\$ 7500
	Berkeley Physics Undergraduate Research Scholarship (BPURS) Fall 2022, Fall 2023, Spring 2024, US\$ 750 each
	Summer Sagan Workshop 2025 “Gas Giants and their Friends” (Poster), Jul 2025
Talks and Posters	UofT Mississauga Chemical and Physical Science Department Slam “Gas Giants and their Friends” (Lightning Talk), Mar 2025
	BPURS Poster Session “Signal Scaling for Nonlinear MIM” (Poster), Apr 2024 “Chaotic Winds from a Dying World” (Poster), Apr 2023
	Berkeley MPS Summer Poster Session “Signal Scaling for Nonlinear MIM” (Poster), Aug 2023
	TESS Science Conference II “Power of SETI with TESS” (Lightning Talk), Aug 2022
Languages and Skills	L ^A T _E X, Python, Unix, Jupyter, C++, Java