Amanda M. Cook

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EDUCATION	Ph.D. Astronomy and Astrophysics , University of Toronto, Toronto ON Thesis Title: "Fast Radio Burst Statistics in Space and Time" Thesis Supervisors: Prof. Gwendolyn Eadie, Prof. Bryan Gaensler, Prof. Paul Scholz	2025
	B.Sc. First Class Honours in Mathematics and Physics McGill University, Montreal QC Thesis Title: "Survey for Repeating Radio Transients with CHIME/FRB" Thesis Supervisors: Prof. Victoria Kaspi, Dr. Ziggy Pleunis	2019
Awards	Banting Postdoctoral Fellowship – National, \$140,000, Research	2025–27
	ASA Astrostatistics IG Student Paper Award (Winner) – International, \$500, Research for my paper "k-Contact Distance for Noisy Nonhomogeneous Spatial Point Data with application to Repeating Fast Radio Burst sources."	2025
	Marcel Grossmann Award as member of CHIME/FRB – International, Research	2024
	Walter C. Sumner Fellowship – National, \$16,000, Research,	2022-24
	NSERC Brockhouse Prize, as member of CHIME/FRB - National, Research	2022
	NSERC PGS-D – National, \$82,000, Research	2022–25
	AAS Lancelot M. Berkley award, as member of CHIME/FRB – International, Research	2022
	Dunlap Institute 'You got us through 2022' Award	2022
	for my service as the president of the UofToronto Graduate Astronomy Students Association	2021
	Ontario Graduate Scholarship – Provincial, \$15,000, Research	2021
	Dunlap Student Training Grant to attend Penn State Astrostats Summer School 120 USD Dunlap Institute Seed Funding as a member of LUVS – Institutional, \$67,182, Research	2021 2021
	Dunlap Institute Seed Funding as a member of LUVS – Institutional, \$26,046, Research	2020
	Governer General's Innovation Award, as member of CHIME/FRB – National, Research	2020
	Student Internship Stipend, JPL/Caltech – Institutional, \$8000, Research	2018
	Student Poster Award, Canadian Undergraduate Research Conference – Communication	2017
	Undergraduate Student Research Award, NSERC - National, \$4500, Research	2017
	Undergraduate Research Award, McGill University – Institutional, \$1625, Research	2017
	Supplement de NSERC USRA, Fonds de recherche du Québec – Provincial, \$2000, Research	2017
	Higher Education Award, Enbridge – Institutional, \$6900, Academic	2015
	Rutherford Scholarship, Government of Alberta – Provincial, \$2500, Academic	2015
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AUTHOR **PUBLICATIONS**

- FIRST OR CORR. [1] CHIME/FRB Collaboration (2025). Corresponding Author: Cook, A. M. FRB 20250316A: A Brilliant and Nearby One-Off Fast Radio Burst Localized to 13 parsec Precision, ApJ Letters, 989, 2, L48 (4 citations)
 - [2] Cook, A. M., Li, D., Eadie, G. M., Stenning, D. C., Scholz, P., Bingham, D., Craiu, R., Gaensler, B. M., and 7 colleagues (2024). k-Contact Distance for Noisy Nonhomogeneous Spatial Point Data with application to Repeating Fast Radio Burst sources, revision submitted to Annals of Applied Statistics (10-10-2024), eprint arXiv:2410.12146. (2 citations)
 - [3] Cook, A. M., Scholz, P., Pearlman, A. B., Abbott, T. C., Cruces, M., Gaensler, B. M., Dong, F. A., Michilli, D., and 15 colleagues (2024). Contemporaneous X-ray Observations of 30 Bright Radio Bursts from the Prolific Fast Radio Burst Source FRB 20220912A, The Astrophysical Journal, Volume 974, Issue 2, id.170 (10 citations)
 - [4] Cook, A. M., Bhardwaj, M., Gaensler, B. M., Scholz, P., Eadie, G. M., Hill, A. S., Kaspi, V. M., Masui, K. W., and 20 colleagues (2023). An FRB Sent Me a DM: Constraining the Electron

- Column of the Milky Way Halo with Fast Radio Burst Dispersion Measures from CHIME/FRB, The Astrophysical Journal, Volume 946, Issue 2, id.58, 14 pp. (68 citations)
- [5] Cook, A. (2018) Exploration of Fermi-LAT Data: An Analysis of Pulsar J1930+1852, McGill Science Undergraduate Research Journal, 13, 12-15 (B.Sc. work)

COLLAB. PUBLICATIONS

- [1] **CHIME/FRB Collaboration** (2025). The Second CHIME/FRB Fast Radio Burst Catalog, The Astrophysical Journal Supplement Series, *submitted Individual Contribution:* I performed repeater analyses and removed Galactic known-source contaminants for the second CHIME/FRB catalog and wrote these sections of the paper. I serve as the expert of the final stage of the real-time pipeline and as a system administrator for CHIME/FRB. I maintain and develop key software components, including the known source sifter, which identifies associations with known sources, and the L4 pipeline, which determines system actions (e.g., baseband/intensity data callbacks, community notifications) based on team science priorities.
- [2] **CHIME/FRB Collaboration** (2023). CHIME/FRB Discovery of 25 Repeating Fast Radio Burst Sources, The Astrophysical Journal, Volume 947, Issue 2, id.83, 31 pp. (147 citations) *Individual Contribution:* I defined the sample for publication by developing a method to characterize probability of chance coincidence of each of the candidate repeaters. This quantifies the likelihood that each cluster of bursts with positions consistent within errors would be physically unrelated to one another. For CHIME, a telescope with uneven exposure on the sky and significant uncertainties in burst localization, this is a non-trivial problem with consequences for modelling and follow-up efforts. This work included the practical implementation of the methodology and writing sections of the paper.
- [3] **CHIME/FRB Collaboration** (2021). The First CHIME/FRB Fast Radio Burst Catalog, The Astrophysical Journal Supplement Series, Volume 257, Issue 2, id.59, 41 pp. (501 citations) *Individual Contribution:* I maintained and developed software within CHIME/FRB's realtime pipeline, including the 'known source sifter' which identifies any associated sources with each detected pulse, and the L4 pipeline, which coordinates, for each detected pulse, the actions taken by the system (intensity/baseband callbacks, community notifications) according to the science priorities of the team. In addition, I helped classify signals to discriminate between real and non-astrophysical during regular monitoring shifts for the experiment. I also measured physical parameters (burst widths, fluences, etc) for a subset of the bursts.
- [4] **CHIME/FRB Collaboration** (2020). A bright millisecond-duration radio burst from a Galactic magnetar, Nature, Volume 587, Issue 7832, p.54-58 (766 citations) *Individual Contribution:* I crafted the argument confirming the FRB's measured DM was consistent with having originated from the magnetar, using free electron models of the Galaxy and the magnetar's X–ray absorbing column density. This evidence was essential to our paper claiming we had detected the first FRB with known progenitor—a Galactic magnetar.

NTH AUTHOR PUBLICATIONS

- [1] Dong, F. A., Clarke, T., Curtin, A. P., Kumar, A., Stairs, I., and 16 colleagues including **Cook, A. M.** (2025). CHIME/Fast Radio Burst/Pulsar Discovery of a Nearby Long-period Radio Transient with a Timing Glitch, The Astrophysical Journal Letters, Volume 990, Issue 2, id.L49, 15 pp. (27 citations)
- [2] Blanchard, P. K., Berger, E., Andrew, S. E., Suresh, A., Uno, K., Kilpatrick, C. D., Metzger, B. D., Kumar, H., Sridhar, N., Cook, A. M., and 17 colleagues (2025). The Astrophysical Journal Letters, Volume 989, Issue 2, id.L49, 10 pp. (3 citations)
- [3] Mckinven, R., Bhardwaj, M., Eftekhari, T., Kilpatrick, C. D., Kirichenko, A., Pal, A., Cook, A. M., Gaensler, B. M., and 36 colleagues (2025). A pulsar-like polarization angle swing from a nearby fast radio burst, Nature, Volume 637, Issue 8044, pp. 43-47 (15 citations)
- [4] Pearlman, A. B., Scholz, P., Bethapudi, S., Hessels, J. W. T., Kaspi, V. M., and 24 colleagues including Cook, A. M. (2025). Multiwavelength constraints on the origin of a nearby repeating fast

- radio burst source in a globular cluster, Nature Astronomy, Volume 9, p. 111-127 (32 citations)
- [5] Abbott, T. C., Zwaniga, A. V., Brar, C., Kaspi, V. M., Petroff, E., Bhardwaj, M., Boyle, P. J., Cook, A. M., and 7 colleagues (2025). frb-voe: A Real-time Virtual Observatory Event Alert Service for Fast Radio Bursts, The Astronomical Journal, Volume 169, Issue 1, id.39, 7 pp. (4 citations)
- [6] Ibik, A. L., Drout, M. R., Gaensler, B. M., Scholz, P., Sridhar, N., and 23 colleagues including Cook, A. M. (2024). A Search for Persistent Radio Sources toward Repeating Fast Radio Bursts Discovered by CHIME/FRB, The Astrophysical Journal, Volume 976, Issue 2, id.199, 30 pp. (12 citations)
- [7] Lin, H.-H., Scholz, P., Ng, C., Pen, U.-L., Bhardwaj, M., and 44 colleagues including **Cook, A. M.** (2024). Do All Fast Radio Bursts Repeat? Constraints from CHIME/FRB Far Sidelobe FRBs, The Astrophysical Journal, Volume 975, Issue 1, id.75, 25 pp. (21 citations)
- [8] Shin, K., Leung, C., Simha, S., Andersen, B. C., Fonseca, E., and 29 colleagues including **Cook**, **A. M.** (2024). Investigating the sightline of a highly scattered FRB through a filamentary structure in the local Universe, eprint arXiv:2410.07307 (9 citations)
- [9] Curtin, A. P., Sirota, S., Kaspi, V. M., Tendulkar, S. P., Bhardwaj, M., and 10 colleagues including **Cook, A. M.** (2024). Constraining Near-simultaneous Radio Emission from Short Gamma-Ray Bursts Using CHIME/FRB, The Astrophysical Journal, Volume 972, Issue 1, id.125, 19 pp. (10 citations)
- [10] Bhardwaj, M., Michilli, D., Kirichenko, A. Y., Modilim, O., Shin, K., and 23 colleagues including **Cook, A. M.** (2024). Host Galaxies for Four Nearby CHIME/FRB Sources and the Local Universe FRB Host Galaxy Population, The Astrophysical Journal Letters, Volume 971, Issue 2, id.L51, 27 pp. (66 citations)
- [11] **CHIME/FRB Collaboration** (2024). Updating the First CHIME/FRB Catalog of Fast Radio Bursts with Baseband Data, The Astrophysical Journal, Volume 969, Issue 2, id.145, 17 pp. (39 citations)
- [12] Pandhi, A., Pleunis, Z., Mckinven, R., Gaensler, B. M., Su, J., and 21 colleagues including **Cook, A. M.** (2024). Polarization Properties of 128 Nonrepeating Fast Radio Bursts from the First CHIME/FRB Baseband Catalog, The Astrophysical Journal, Volume 968, Issue 2, id.50, 34 pp. (34 citations)
- [13] Ibik, A. L., Drout, M. R., Gaensler, B. M., Scholz, P., Michilli, D., and 16 colleagues including Cook, A. M. (2024). Proposed Host Galaxies of Repeating Fast Radio Burst Sources Detected by CHIME/FRB, The Astrophysical Journal, Volume 961, Issue 1, id.99, 17 pp. (54 citations)
- [14] Dong, F. A., Crowter, K., Meyers, B. W., Pleunis, Z., Stairs, I., and 11 colleagues including **Cook**, **A. M.** (2023). The second set of pulsar discoveries by CHIME/FRB/Pulsar: 14 rotating radio transients and 7 pulsars, Monthly Notices of the Royal Astronomical Society, Volume 524, Issue 4, pp.5132-5147 (25 citations)
- [15] Sand, K. R., Breitman, D., Michilli, D., Kaspi, V. M., Chawla, P., and 29 colleagues including Cook, A. M. (2023). A CHIME/FRB Study of Burst Rate and Morphological Evolution of the Periodically Repeating FRB 20180916B, The Astrophysical Journal, Volume 956, Issue 1, id.23, 19 pp. (16 citations)
- [16] Curtin, A. P., Tendulkar, S. P., Josephy, A., Chawla, P., Andersen, B., and 19 colleagues including Cook, A. M. (2023). Limits on Fast Radio Burst-like Counterparts to Gamma-Ray Bursts Using CHIME/FRB, The Astrophysical Journal, Volume 954, Issue 2, id.154, 16 pp. (22 citations)
- [17] Michilli, D., Bhardwaj, M., Brar, C., Gaensler, B. M., Kaspi, V. M., and 25 colleagues including **Cook, A. M.** (2023). Subarcminute Localization of 13 Repeating Fast Radio Bursts Detected by CHIME/FRB, The Astrophysical Journal, Volume 950, Issue 2, id.134, 12 pp. (44 citations)
- [18] Bhardwaj, M., Gaensler, B. M., Kaspi, V. M., Landecker, T. L., Mckinven, R., and 21 colleagues including **Cook, A. M.** (2021). A Nearby Repeating Fast Radio Burst in the Direction of M81, The Astrophysical Journal Letters, Volume 910, Issue 2, id.L18, 14 pp. (239 citations)
- [19] Scholz, P., Cook, A. M., Cruces, M., Hessels, J. W. T., Kaspi, V. M., and 33 colleagues (2020). Si-

multaneous X-Ray and Radio Observations of the Repeating Fast Radio Burst FRB 180916.J0158+65, The Astrophysical Journal, Volume 901, Issue 2, id.165, 9 pp. (57 citations)

/ALERTS

SHORT NOTICE Astronomer's Telegram #17021 & GCN Circular #39216: CHIME/FRB source FRB 20250206A detected PUBLICATIONS less than 1 minute after LVK binary merger S250206dm, however the probability of spatial coincidence is order 0.1% 2025

OBSERVING

'Simultaneous XMM-Newton and Radio observations of Repeating FRBs' Submitted as PI to XMM-PROPOSALS (AS Newton AO-21. Time Awarded: 42ks

PI)

FRB 20220912A High-Urgency Target of Opportunity, Submitted as PI to Swift. Awarded two visits, 24 hours apart to provide simultaneous exposure to CHIME/FRB. 2022

PRESENTATIONS

Presenter indicated by **

INVITED

- [1] *Cook, A. M.*, Scholz, P., Stenning, D., Bingham, D., Eadie, G., Towards Solving the Fast Radio Burst Enigma: Probability of Event Chance Coincidence for Inhomogeneous Noisy Spatial Point Processes, Computational and Methodological Statistics (Dec 2025) Kings College, London, (20 minutes), International Conference
- [2] *Cook, A. M.*, Scholz, P., Stenning, D., Bingham, D., Eadie, G., Towards Solving the Fast Radio Burst Enigma: Probability of Event Chance Coincidence for Inhomogeneous Noisy Spatial Point Processes, Prize talk, Joint Statistical Meeting (Aug 2025), Nashville, Tennessee (20 minutes), International Conference
- [3] *Cook, A. M.* FRB Statistics in time and space: how to use statistics to study FRBs and the gas they travel through, Séminaire d'astronomie et d'astrophysique du CRAQ, Université de Montréal (April 2025), Montréal, Quebec, (60 minutes), Seminar
- [4] *Cook, A. M.* Fast Radio Bursts: A Cosmic Mystery. Astronomy on Tap, Toronto, Canada, November 2024, Public Talk
- [5] Cook, A. M., Scholz, P., Stenning, D., Bingham, D., *Eadie, G.*, Towards Solving the Fast Radio Burst Enigma: Probability of Event Chance Coincidence for Inhomogeneous Noisy Spatial Point Processes, Joint Statistical Meeting 2023 (20 minutes), International Conference
- [6] *Cook, A. M.*, Bhardwaj, M., Gaensler, B.M., Scholz, P., Eadie, G., Constraining the Plasma in the Milky Way's Halo with CHIME/FRB, 'FLASH Talk', UC Santa Cruz, May 2024, (45+15 minutes), Institutional Seminar
- [7] Cook, A. M., Scholz, P., Stenning, D., Bingham, D., *Eadie, G.*, Towards Solving the Fast Radio Burst Enigma: Probability of Event Chance Coincidence for Inhomogeneous Noisy Spatial Point Processes, Joint Statistical Meeting 2023 (20 minutes), International Conference
- [8] *Cook, A. M.*, Bhardwaj, M., Gaensler, B.M., Scholz, P., Eadie, G., Constraining the Plasma in the Milky Way's Halo with CHIME/FRB, Plenty of Room at the Bottom; Fast Radio Bursts in our Backyard Cornell University, October 2022, 20 minutes, International Workshop
- [9] *Cook, A. M.*, Gaensler, B.M., Scholz, P., Eadie, G., Constraining the Plasma in the Milky Way's Halo with CHIME/FRB, Caltech Tea Talk, Nov 2021, Invited speaker (45+15 minutes), Institutional Seminar

CONTRIBUTED

- [1] *Cook, A. M.* & CHIME/FRB Collaboration. CHIME/FRB's Fourth Repeater Catalogue. FRB 2024, Khao Lak, Thailand. November 2024, Flash Talk (3+2 minutes), International Conference
- [2] *Cook, A. M.*, Bhardwaj, M., Gaensler, B.M., Scholz, P., Eadie, G., Constraining the Plasma in the Milky Way's Halo with CHIME/FRB, Multiphase Madness, Harvard-Smithsonian Center for Astrophysics, August 2024 (15+5 minutes), International Workshop
- [3] *Cook, A. M.*, Scholz, P., Stenning, D. C., Bingham, D., Eadie, G., Towards Solving the Fast

- Radio Burst Enigma: Probability of Event Chance Coincidence for Inhomogeneous Noisy Spatial Point Processes., May 2024, Hot Wiring the Transient Universe VII (10+3 minutes), International Workshop
- [4] *Cook, A. M.*, Scholz, P., Stenning, D., Bingham, D., Eadie, G., Towards Solving the Fast Radio Burst Enigma: Probability of Event Chance Coincidence for Inhomogeneous Noisy Spatial Point Processes., October 2023, Astrostats in Canada and Beyond (20 minutes), National Workshop
- [5] *Cook, A. M.*, Bhardwaj, M., Gaensler, B.M., Scholz, P., Eadie, G., Constraining the Plasma in the Milky Way's Halo with CHIME/FRB, Gas Evolution in and Around Galaxies, Stanley Idaho, August 2023 (20 minutes), International Workshop
- [6] *Cook, A. M.*, Gaensler, B.M., Scholz, P., Eadie, G., Constraining the Plasma in the Milky Way's Halo with CHIME/FRB, FRB 2021 (12+3 minutes), International Conference
- [7] Chen S., Cook, A. M., *Taylor, J.*, Tohuvavohu A. (2020) Preliminary design for a small UV space telescope. Poster Presentation, CASCA 2020, National Conference
- [8] *Cook, A. M.*, Amsellem, A., Pearlman, A. B., Arzoumanian, Z., Enoto, T., Gendreau, K., Horiuchi, S., Kocz, J., Kuiper, T., Majid, W. A., Naudet, C., Prince, T. (2019) Radio and X-ray Monitoring of the Recently Reactivated Magnetar PSR J1622-4950, Oral Presentation, 233rd Meeting of the American Astronomical Society, International Conference (BSc work)
- [9] *Cook, A. M.* (2017) Exploration of Fermi-LAT Data: An Analysis of Pulsar J1930+1852, Poster Presentation Canadian Undergraduate Physics Conference, National Conference (BSc work)

OUTREACH

- [1] Nanaimo Astronomy Society, September Meeting (Sep 2025) *Uncovering the Cosmic Mystery of Fast Radio Bursts with CHIME*
- [2] Astro On Tap: Montreal (2025) Fast Radio Bursts: A cosmic mystery
- [3] Astro On Tap: Toronto (2024) Fast Radio Bursts: A cosmic mystery

OTHER EXPERIENCE

Visiting Astrostatistics Researcher, Canadian Statistical Sciences Institute (CANSSI)

2023

Supervised by Prof. David Stenning, Prof. Derek Bingham

- Collaborated on astrostastics methodology with experts at Simon Fraser University
- Wrote paper submitted to the Annals of Applied Statistics
- Visit was sponsored by a 'Collaborative Research Team' grant from CANSSI

Undergraduate Researcher in High Energy Astrophysics, University of Kyoto

2019

Supervised by Prof. Teruaki Enoto

• Developed periodicity search pipeline for archival NICER observations of neutron stars which had a reported period from radio observations but had not yet been seen to emit periodically in X-ray emission.

Student Intern, Caltech & NASA Jet Propulsion Labs

2018

"X-ray Monitoring of Magnetar PSR J1622-4950"/"All-Sky Survey for Radio Transients"

Supervised by Dr. Walid Majid

- Conducted multi-wavelength analysis of magnetar following its reactivation in radio emission using X-ray data from NICER and gamma-ray data from Fermi-LAT. Analysis included periodicity searches and maximum likelihood region modeling
- Assisted a team developing an efficient processing pipeline to search for FRBs in archival data from the Deep Space Network

Undergraduate Researcher, McGill University

2017

"Gamma-ray Astrophysics with Fermi-LAT"

Supervised by Prof. Ken Ragan

• Investigated astrophysical objects and systems of interest to VHE observatories using Fermi-LAT data and analysis tools. Analysis included pulsar timing, spectral energy distribution modelling and maximum likelihood fitting of gamma-ray photon event data.

TEACHING

Graduate Teaching Assistant, University of Toronto

2019-2023

As a Teaching Assistant:

- Creating and leading weekly tutorials and coding workshops
- Holding office hours and offering assistance with lab report completion

As the Head Tutorial TA for the largest course in North America:

- developed tutorial content for students
- developed material about effective online teaching during the 2020 pandemic
- managed a team of more than a dozen TAs and led weekly preparation meetings

Course topics include practical/observational astronomy, stellar astrophysics, radiation, and cosmology for third year students in the astronomy specialist program and observational astronomy for nonastronomy students (AST 326, AST 301, AST 320, AST 101, AST 201, AST 101).

Grader, (MATH 325) McGill University Supervised by Prof. Antony Humphries

2018

SERVICE

CURRENT

EDI In Action Advisory Committee Member

since 2025

SERVICE ROLES Canadian Excellence Research Chair in Transient Astrophysics

- Led the development of a comprehensive Equity, Diversity, and Inclusion (EDI) Action Plan for the Canada Excellence Research Chairs (CERC) program, aligning with federal tri-agency mandates and setting institutional precedent for intersectional, evidence-based EDI practices in high-impact research environments.
- As a committee member, I ensure that EDI practices are central to CERC Chairholder's decisionmaking and to provide guidance on the development, implementation and ongoing improvement of CERC-TA EDI Action Plan.

Postdoctoral Representative Trottier Space Institute Board of Directors Referee

since 2025

since 2024

I regularly accept requests to serve as a peer reviewer for leading astronomy journals, including Astronomy & Astrophysics. the Astrophysical Journal Letters, and the Astrophysical Journal

CHORD/FRB Collaboration Member

since 2024

Roles/Responsibilities include:

• Pipeline Developer: Writing the analysis pipeline that will be used to process baseband data from CHORD/FRB

CHIME/FRB Collaboration Member

since 2019

Roles/Responsibilities include:

- System Admin: Address issues escalated by system monitors and assist the system/science experts to help resolve system issues.
- Pipeline Expert: maintenance and continued development of number of pipelines and software 'actors' within the telescope, including the 'known source sifter' which identifies any associated sources with each detected pulse in real time, the L4 pipeline, which coordinates, for each detected pulse, the actions taken by the system (intensity/baseband callbacks) according to the science priorities of the team and stores a database of astrophysical events
- Convener of biweekly "Counterparts Working Group" (2020-2024) and "Probes Working Group" (since 2024) meetings, oversee relevant projects

PREVIOUS

Co-Chair Annual Fast Radio Burst Conference "FRB 2025"

2024-2025

SERVICE ROLES In a duo of co-chairs, chosen to host the next edition of the annual FRB conference. FRB 2025 was a five-day, international, hybrid meeting in July 2025 with an attendance of 200. Responsibilities included oversight of a scientific and local organizing committee with 25 total members.

Chandra Peer Review Time Allocation Committee Member Center for Astrophysics

Reviewing proposals for target of opportunity observations for Chandra Cycle 26

Instrumentation Summer School Admissions Committee Dunlap Institute

2023

2024

Reviewed candidate's application material and made admissions rankings, allocated available travel funds.

Local Organizing Committee Member Dunlap Institute & CHIME/FRB

2023

"Multi-wavelength follow-up of fast radio bursts in the era of routine (sub)arcsecond localizations", a two-day hybrid meeting in April 2023 with invited plenary talks and discussion groups.

Public Outreach Volunteer Dunlap Institute/University of Toronto Highlights include:

2019-2024

- Astro On Tap Speaker
- Invited guest speaker at Cawthra High School STEM conference
- Filmed three episodes of 'Cosmos on your Couch', a YouTube series aimed at non-astronomers
- Hosted a panel of experts to speak about the Ethics of Space Colonization at the Dunlap Institute's 2021 'Planet Party'. This event drew 2.3k viewers.
- Multiple appearances as a panelist for becoming an astronomer for students at the high school to senior undergraduate level.

Executive Committee, *President*, Graduate Astronomy Students Association, DADDAA 2021-2022

- Assisted in organizing opportunities for graduate students to meet candidates and collating the student's feedback for three astronomy faculty hires.
- Negotiated a \$5.3k (19%) stipend increase for graduate students, the largest in department history
- Acted as advocate for graduate student interests and as a liaison between graduate students and astronomy department executives. Priorities included student mental health and ensuring PhD success in the final months of and return from large-scale COVID-19 isolation
- Acted as department student representative for prospective and incoming graduate students

Executive Committee, *Secretary*, Graduate Astronomy Students Association, DADDAA 2020-2021 **Editor**, Delta Epsilon, McGill Journal of Undergraduate Mathematics 2017-2019

Graduate Student Mentor University of Toronto

2020-2022

• Provided support and mentorship for three undergraduate students and a graduate student.

Public Outreach Volunteer Astro McGill

2017-2019

COMPETENCES Languages English (*native*), French (*B2*)

Techniques Python, R, LATEX, bash, git, basic mathematica, and Matlab