Amanda M. Cook

amanda.cook@mail.mcgill.ca
cookamanda.github.io

Research Interests

UAT Keywords: Astrostatistics (1882), Baryon density (139), Circumgalactic medium (1879), Galaxy formation (595), High energy astrophysics (739), Intergalactic gas (812), Interstellar medium (847), Milky Way formation (1053), Radio transient sources (2008), Warm ionized medium (1788)

Education

Ph.D. Astronomy and Astrophysics, University of Toronto, Toronto ON 2025
Thesis Title: "*Fast Radio Burst Statistics in Space and Time*"
Thesis Supervisors: Prof. Gwendolyn Eadie, Prof. Bryan Gaensler, Prof. Paul Scholz

B.Sc. First Class Honours in Mathematics and Physics McGill University, Montreal QC 2019
Thesis Title: *"Survey for Repeating Radio Transients with CHIME/FRB"*
Thesis Supervisors: Prof. Victoria Kaspi, Dr. Ziggy Pleunis

Professional Appointments

Banting Postdoctoral Research Fellow, McGill University, Montréal, QC since 2025
Advisor: Jason W. T. Hessels

Competences

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

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

Awards

Banting Postdoctoral Fellowship – National, $140,000, Research 2025–27

ASA Astrostatistics IG Student Paper Award (Winner) – International, $500, Research 2025
for my paper "k-Contact Distance for Noisy Nonhomogeneous Spatial Point Data with application to Repeating Fast Radio Burst sources."

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

Ontario Graduate Scholarship – Provincial, $15,000, Research 2021

Dunlap Student Training Grant *to attend Penn State Astrostats Summer School* 120 USD 2021

Dunlap Institute Seed Funding *as a member of LUVS* – Institutional, $67,182, Research 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

Publications

Summary: Four first author or equivalent publications since 2023 in premier journals and totaling 90 citations. 28 co-authored publications with 2300 total citations. Journals include *Nature, Nature Astronomy, the Astrophysical Journal and Letters,* and *Annals of Applied Statistics*. Top statistics journals like AOAS have acceptance rates of ∼5–20%. First author on commissioned meeting report for *Nature Astronomy*.

FIRST OR CORR. AUTHOR PUBLICATIONS

[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 (10 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*, accepted to the Annals of Applied Statistics (10-27-2025), 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. (71 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). Simultaneous 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)

NON-REFEREED CONTRIBUTIONS

[1] **Cook, A. M.** & Curtin, A. P. (2025) *Fast Radio Bursts 2025*, Nature Astronomy Meeting Report, *commissioned, in press* (11-04-2025)

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

AWARDED TELESCOPE TIME (AS PI)

'Simultaneous XMM-Newton and Radio observations of Repeating FRBs' Submitted as PI to *XMM-Newton* AO-21. Time Awarded: 42ks 2021

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

INVITED

[1] *FRB Statistics in time and space: how to use statistics to study FRBs and the gas they travel through*, Oxford University (Dec 2025), Oxford, England, SPI-Max Seminar (60 minutes), Institutional Seminar

[2] *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

[3] *CHIME/FRB's Second Catalog: 4000 FRBs and 100 Repeaters*, Montréal, Quebec, (Nov 2025), McGill University, Physical Society Colloquia, (60 minutes), Institutional Colloquium

[4] *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

[5] *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

[6] *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] *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] *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] *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] *FRB 20250316A: A Brilliant and Nearby One-Off Fast Radio Burst Localized to 13 parsec Precision*. Science at Low Frequencies XI, Orléans, France. December 2025 (18+2 minutes), International Conference

[2] *CHIME/FRB's Fourth Repeater Catalogue*. FRB 2024, Khao Lak, Thailand. November 2024, Flash Talk (3+2 minutes), International Conference

[3] *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

[4] *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

[5] *Towards Solving the Fast Radio Burst Enigma: Probability of Event Chance Coincidence for Inhomogeneous Noisy Spatial Point Processes*, October 2023, Astrostatistics in Canada and Beyond (20 minutes), National Workshop

[6] *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

[7] Constraining the Plasma in the Milky Way's Halo with CHIME/FRB, FRB 2021 (12+3 minutes), International Conference

[8] *Radio and X-ray Monitoring of the Recently Reactivated Magnetar PSR J1622-4950*, Oral Presentation, 233rd Meeting of the American Astronomical Society (2019), International Conference

[9] *Exploration of Fermi-LAT Data: An Analysis of Pulsar J1930+1852*, Poster Presentation Canadian Undergraduate Physics Conference, 2017, National Conference

OUTREACH

[1] *Uncovering the Cosmic Mystery of Fast Radio Bursts with CHIME*, Nanaimo Astronomy Society, September Meeting (Sep 2025)

[2] *Fast Radio Bursts: A cosmic mystery*, Astro On Tap: Montreal (2025)

[3] *Fast Radio Bursts: A cosmic mystery*, Astro On Tap: Toronto (2024)

PRESS RELEASES

[1] *Brightest fast radio burst seen so far allows researchers to zoom in on the location of origin*, McGill-led press release for FRB 20250316A discovery. Coordinated release with 15 participating academic institutions. Commissioned work from artist for release. Subsequently picked up by major news outlets like CNN, Science News Magazine, and Quebec Science. (August 2025)

[2] *Fast Radio Burst Conference hosted at McGill for the first time* , McGill-led press release for our organization of FRB 2025. Focuses on contributions and leadership from early career researchers, equity and accessibility, and the tenth anniversary of the first repeater discovery at McGill (July 2025)

[3] *Fast radio bursts used as 'searchlights' to detect gas in Milky Way* , Dunlap Institute-led press release for my paper constraining the plasma in the Milky Way's halo. Was subsequently picked up by IFLScience and written about in Sky & Telescope. (March 2023)

OTHER RESEARCH 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

- Analysis included pulsar timing, spectral energy distribution modelling and maximum likelihood fitting of gamma-ray photon event data.

TEACHING

Student Supervision

Maya Smith, BSc Honours Thesis, McGill 2025–2026

- "CHORD RFI excision with Convolutional Denoising Autoencoders"
- co-advised with Prof. Jason Hessels

Maya Smith, TSI Summer Undergraduate Research Program, McGill 2025

- co-advised with Prof. Jason Hessels
- "Fast Radio Bursts Repetition Statistics via the Weibull Distribution"

Graduate Teaching Assistant, University of Toronto 2019-2023
Grader, (MATH 325) McGill University 2018
Supervised by Prof. Antony Humphries

SERVICE

CURRENT SERVICE ROLES

EDI In Action Advisory Committee Member since 2025
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 decision-making 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 since 2025

Referee 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 SERVICE ROLES

Co-Chair Annual Fast Radio Burst Conference "FRB 2025" 2024–2025

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 2024

Instrumentation Summer School Admissions Committee Dunlap Institute 2023

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"

Public Outreach Volunteer Dunlap Institute/University of Toronto 2019-2024

Highlights include (i) speaking at Cawthra High School STEM conference, (ii) filming three episodes of 'Cosmos on your Couch', a YouTube series aimed at non-astronomers, (iii) hosting 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 (iv) multiple panels on graduate school/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

REFERENCES

Derek Bingham Department Chair & Professor of Statistics and Actuarial Science, Simon Fraser University dbingham@sfu.ca

Bryan M. Gaensler Dean of Division of Physical & Biological Sciences and Professor of Astronomy and Astrophysics, University of California, Santa Cruz gaensler@ucsc.edu

Jason W. T. Hessels Canada Excellence Research Chair (CERC) in Transient Astrophysics & Professor of Physics, McGill University jason.hessels@mcgill.ca

Victoria M. Kapsi Director of the Trottier Space Institute & Distinguished James McGill Professor in Physics, McGill University. victoria.kaspi@mcgill.ca