

Nasser Mohammed

Department of Astronomy and Astrophysics
University of Toronto

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ID: 0009-0008-1224-0382

Research Interests: Stellar Streams, Dark Matter, Galactic Archeology, Astrostatistics, AI
Skills: Python, SQL, Java, MATLAB, L^AT_EX, Data Visualization, Machine Learning

Education

Sep. 2024 – Present	PhD in Astronomy & Astrophysics University of Toronto Thesis topic: <i>Indirect Dark Matter Detection via Stellar Streams</i> Supervisor: Professor Ting S. Li
Sep. 2019 – Dec. 2023	BSc Honours in Physics, Minor in Data Science University of British Columbia, Okanagan Thesis Title: <i>Polarimetric Study of ‘Tadpole’ Feature G137+7 with CHIME Radio Data</i> Supervisor: Professor Alex S. Hill

Publications

Nasser Mohammed, et al. 2026, in preparation: *DESI Chemodynamical Modelling of Stellar Streams I: The Metal-Poor C-19*
 Nasser Mohammed, et al. 2024, ApJ, 971, 100: *Faraday Tomography with CHIME: The ‘Tadpole’ Feature G137+7*

Awards & Honours

2025	NSERC Canadian Graduate Masters Scholarship
2025	LSST Discovery Alliance Data Science Fellowship
2025	UofT Recognition of Excellence Award
2024	Mary Louise & Ronald Laidlaw Martin Graduate Scholarship in A&A
2024	David A. Dunlap Department of Astronomy & Astrophysics Entrance Fellowship
2024	NSERC Canadian Graduate Masters Scholarship (declined)
2024	NSERC Undergraduate Student Research Award
2023	Irving K. Barber Faculty of Science Undergraduate Research Award (2023)
2023	NSERC Undergraduate Student Research Award

Supervising & Mentoring Experience

Sep. 2025 – Present	Alex Brisebois	Graduate Mentorship Program University of Toronto
Sep. 2025 – Present	Maia Wertheim	Undergraduate Mentorship Program University of Toronto
May 2025 – Sept. 2025	Alejandra Calderon	Research Project Co-Supervisor Mitacs
Jan. 2025 – Oct. 2025	Isabelle Liang	Undergraduate Mentorship Program University of Toronto
Apr. 2023 – Sept. 2023	5 Mentees	Globalink Mentorship Program Mitacs <i>Mentored five international students travelling to UBC Okanagan for summer research projects.</i>

Leadership & Service

Upcoming, Jul. 2026	Local Organizing Committee Member: “Near Field Cosmology in the Era of Big Data: Local Group and Beyond” Workshop The Fields Institute, University of Toronto
Oct. 2025 – Current	Union Steward CUPE 3902 Unit 1 Union Steward for Unit 1 & Graduate Student Astronomy Association Union Representative.

Oct 2024 – Current	Colloquium Speaker Dinner Organizer David. A Dunlap Dept. of Astro. & Astrophysics Co-ordinates post-doc and graduate student attendees, place reservations, accomodate speaker and attendee dietary restrictions.
Oct. 2024 – Oct. 2025	Mediation Committee Graduate Astronomy Student Association Authored report on graduate student population financial wellbeing and work-life balance. Successfully advocated for increase in astronomy graduate student stipends.
May 2023 – May 2024	Co-Founder & President of the UBC Okanagan Astronomy Club Hosted seminars, coordinated stargazing nights, organized youth STEM outreach initiatives.

Further Education

Feb. 2025 – Present	LSST Discovery Alliance Data Science Fellowship Program
May 2023	Canadian Astroparticle Physics Summer School, Queen's University & SNOLAB

Observing Experience

26 Sep. 2025 – 26 Sep. 2025	Co-Investigator, Las Campanas Observatory Región de Coquimbo, Chile 2 nights on Magellan/MIKE; Observations of the C-19 stellar stream
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List of Talks

Oct. 2025	IAU Symposium 403: Hidden Beauty of the Galactic Outskirts Córdoba, Spain Oral presentation
Oct. 2025	University of Toronto, St. George Toronto, ON, Canada Guest lecture: AST101
Aug. 2025	York University EXPLORE Summer School North York, ON, Canada Lecturer
Jun. 2025	Clusters in Halifax Workshop Halifax, NS, Canada 15-minute talk
Jun. 2025	CASCA Annual General Meeting 2025 Halifax, NS, Canada Poster presentation
Mar. 2024	Okanagan College Kelowna, BC, Canada Guest lecture: Introduction to the Interstellar Medium (ASTR 121)
Feb. 2024	University of Calgary PHAS Symposium Calgary, AB, Canada 15-minute talk
Sep. 2023	UBC Okanagan Faculty of Science URA Symposium Kelowna, BC, Canada Poster presentation
Jun. 2023	CASCA Annual General Meeting 2023 Penticton, BC, Canada Poster presentation
Jun. 2023	TomFest: Frontiers in Radio Science and Engineering Kaleden, BC, Canada 15-minute talk