

Jianing (Jenny) Su

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EDUCATION

PhD (direct entry) in Astronomy and Astrophysics	2023 - Present
<i>University of Toronto, Toronto, ON, Canada</i>	
• Supervisor: Professor Maria Drout	
BSc in Physics	2019 - 2023
<i>McGill University, Montréal, QC, Canada</i>	
• Minor in Mathematics	

AWARDS AND SCHOLARSHIPS

Queen Elizabeth II Graduate Scholarship in Science and Technology (\$15000)	2024
<i>University of Toronto</i>	
Dunlap Student Training Grant (\$180)	2024
<i>University of Toronto, to attend CASCA</i>	
David A. Dunlap Entrance Scholarship (\$3000)	2023
<i>University of Toronto</i>	
Undergraduate Student Research Award (\$6000)	2022
<i>Natural Sciences and Engineering Research Council of Canada (NSERC)</i>	
NSERC Scholarship Supplements (\$1500)	2022
<i>Fonds de recherche du Québec - Nature et Technologies</i>	
Science Tomlinson Engagement Award for Mentoring (\$600)	2021, 2022
<i>McGill University</i>	
Arthur and Crystal Lau Entrance Scholarship in Science (\$3000)	2019
<i>McGill University</i>	

UNDERGRADUATE RESEARCH EXPERIENCE

Undergraduate Research	Jan 2022 – Aug 2023
<i>McGill University</i>	
<ul style="list-style-type: none">• Supervisor: Professor Victoria Kaspi and Dr. Ryan Mckinven• Adjusted the script of the Canadian Hydrogen Intensity Mapping Experiment Fast Radio Burst (CHIME/FRB) polarization pipeline to apply on a morphologically complex sample of FRBs• Examined polarization distributions between repeating and non-repeating FRBs to better understand the emission mechanisms and preferred environments of FRB sources.• Compared repeating and non-repeating FRBs by applying two-sample comparison analyses and programming R codes to apply survival analysis on censored data	

PUBLICATIONS

- [1] CHIME/FRB Collaboration et al. “CHIME/FRB Discovery of 25 Repeating Fast Radio Burst Sources”. In: (2023). DOI: 10.48550/ARXIV.2301.08762. URL: <https://arxiv.org/abs/2301.08762>.
- [2] Jakob T. Faber et al. *Morphologies of Bright Complex Fast Radio Bursts with CHIME/FRB Voltage Data*. 2023. arXiv: 2312.14133 [astro-ph.HE].
- [3] R. Mckinven et al. “A Large-scale Magneto-ionic Fluctuation in the Local Environment of Periodic Fast Radio Burst Source FRB 20180916B”. In: *The Astrophysical Journal* 950.1 (June 2023), p. 12. DOI: 10.3847/1538-4357/acc65f. URL: <https://dx.doi.org/10.3847/1538-4357/acc65f>.
- [4] R. Mckinven et al. “Revealing the Dynamic Magnetoionic Environments of Repeating Fast Radio Burst Sources through Multiyear Polarimetric Monitoring with CHIME/FRB”. In: 951.1 (July 2023), p. 82. DOI: 10.3847/1538-4357/acd188. URL: <https://dx.doi.org/10.3847/1538-4357/acd188>.
- [5] Ayush Pandhi et al. “Polarization Properties of 128 Nonrepeating Fast Radio Bursts from the First CHIME/FRB Baseband Catalog”. In: *The Astrophysical Journal* 968.2 (June 2024), p. 50. DOI: 10.3847/1538-4357/ad40aa. URL: <https://dx.doi.org/10.3847/1538-4357/ad40aa>.
- [6] J. Su. “Lunar Ultraviolet Spectroscopy”. In: *Encyclopedia of Lunar Science*. Ed. by B. Cudnik. Springer, 2022. URL: <https://doi.org/10.1007/978-3-319-05546-6%20173-1>.

POSTERS

- Constraints on the Progenitor and any Surviving Companion of SESN SN2017gax** 2025
Transients from Space, STScI, Baltimore, USA
- Improved Period Estimates of RR Lyrae Stars using Multi-Tapering and the F-Test** 2024
8th TESS/15th Kepler Asteroseismic Science Consortium Workshop, Porto, Portugal
- McGill Undergraduate Poster Showcase** 2023
McGill University
- McGill Undergraduate Summer Research Showcase (Talk)** 2022
Trottier Space Institute at McGill University

SCIENCE COMMUNICATION AND ENGAGEMENT

- Keynote Speaker Executive** Sep 2023 - Oct 2024
University of Toronto Graduate Astronomy Students Association, Toronto, ON, Canada
 - Invited Dr. Becky Smethurst to hold a public talk at University of Toronto.
- Volunteer for Astrophysics Outreach program** Jan 2022 – May 2023
AstroMcGill, Montréal, QC, Canada
 - Volunteered at astrophysics talks held by McGill’s Trottier Space Institute that is open to the public
 - Engaged primary school children on astrophysics-related activities
- Leader of Educational Outreach in Space Club** Jan 2022 – Aug 2022
McGill Space Group, Montréal, QC, Canada
 - Reached out to museums to hold space-related workshops
 - Organized outreach events for the club’s participation in Canadian Satellite Design Challenge (SDSS) and Canadian Stratospheric Balloon Experiment Design Challenge (CAN-SBX).
- Director of Events for Virtual Reality Club** Sep 2021 – Apr 2022
McGill AR/VR Association, Montréal, QC, Canada
 - Planned and designed events related to augmented reality and virtual reality
- Volunteer for Science Outreach Program** Jan 2020 – Aug 2021
McGill University Let’s Talk Science Outreach, Montréal, QC, Canada
 - Explained fun facts about science to children aged 5-12 through in-person and online workshops

TEACHING EXPERIENCE

Teaching Assistant: Life on Other Worlds <i>University of Toronto, Toronto, ON, Canada</i>	Jan 2025 - Apr 2025
Head Teaching Assistant: The Sun and its Neighbours. <i>University of Toronto, Toronto, ON, Canada</i>	Sep 2024 - Dec 2024
Teaching Assistant: Stars and Galaxies. <i>University of Toronto, Toronto, ON, Canada</i> <ul style="list-style-type: none">• Co-lead 4 weekly tutorials, design assignment questions, and invigilate exams	Jan 2024 - Apr 2024
Teaching Assistant: The Sun and its Neighbours <i>University of Toronto, Toronto, ON, Canada</i> <ul style="list-style-type: none">• Co-led 3 one-hour long weekly tutorials on introduction to astronomy	Sep 2023 - Dec 2023
Physics Mentor <i>McGill University, Montréal, QC, Canada</i> <ul style="list-style-type: none">• Tutored undergraduate students in a 500 students classical mechanics course	Sep 2022 – Dec 2022
Statistics Grader <i>McGill University, Montréal, QC, Canada</i> <ul style="list-style-type: none">• In charge of grading statistics assignments for 50 students	Sep 2022 – Dec 2022
Calculus Mentor <i>McGill University, Montréal, QC, Canada</i> <ul style="list-style-type: none">• Tutored undergraduates in a 200 students class on Calculus II.	Jan 2021 – Apr 2021
Tutor at Literacy Organization <i>McGill University Frontier College, Montréal, QC, Canada</i> <ul style="list-style-type: none">• Tutored 10 under-privileged students in a group setting of on mathematics and science	Sep 2019 – Feb 2020