

BORIS LI

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Education

University of Waterloo, Waterloo, ON

Sep 2025 –

MMath Pure Mathematics

University of British Columbia, Vancouver, BC

Sep 2020 – Apr 2025

BSc Combined Honours Physics & Mathematics

- Honours thesis (supervised by Prof. Ian Frigaard): Stability of Two-fluid Concentration Gradients
- 2-time Dean's Scholar (90% or better average)
- 2-time Dean's List (80% or better average)
- Science One, class of 2021

Publications

B. Li. “[Stability of Two-fluid Concentration Gradients](#)”. BSc thesis, (2024).

A. Abghari et al. “Reassessment of the dipole in the distribution of quasars on the sky”. Preprint, (2024)
arXiv: [2405.09762](#).

- Contribution: Initial data analysis

Research

University of British Columbia, Vancouver, BC

May – Aug 2023

Departments of Mathematics and Mechanical Engineering

Undergraduate Research Assistant

- Supervised by Prof. Ian Frigaard
- Studied the fluid mechanics behind flow between a heavier Herschel-Bulkley fluid on top of a lighter Newtonian fluid in a vertical pipe
- Utilized both experimental techniques, and simulations through ParaFOAM

University of British Columbia, Vancouver, BC

May – Aug 2022

Department of Physics and Astronomy

Undergraduate Research Assistant

- Supervised by Prof. Douglas Scott
- Studied the dipole anisotropy of quasar distributions from WISE data
- Utilized astronomy-related Python packages, such as Astropy, Healpy, and PolSpice

Teaching

University of Waterloo, Waterloo, ON

Sep 2025 –

Department of Pure Mathematics

Graduate Teaching Assistant

- MATH 116 (Calculus 1 for Engineering): 1 term
- MATH 117 (Calculus 1 for Engineering): 1 term
- MATH 136 (Linear Algebra 1 for Honours Math): 1 term
- MATH 235 (Linear Algebra 2 for Honours Math): 1 term
- PMATH 336 (Intro Group Theory and Applications): 1 term
- PMATH 340 (Elementary Number Theory): 1 term
- PMATH 450/650 (Measure Theory): 1 term

University of British Columbia, Vancouver, BC

Sep 2021 – Apr 2024

Science One Program & Department of Computer Science

Undergraduate Teaching Assistant

- SCIE 001 (Science One Program): physics and mathematics portions, 3 years
- CPSC 110 (Computation, Programs, and Programming): 6 terms

University of British Columbia, Vancouver, BC

May – Aug 2021

Department of Mathematics

Undergraduate Academic Assistant

- Wrote and designed questions for PrairieLearn, an online homework and testing platform, based on the CLP textbooks¹
- Developed a system for units-aware problems in PrairieLearn, which has now been merged into the main repository²³

Scholarships & Awards

Undergraduate Student Research Award (CAD\$12000 over 2 awards)

2022 – 2023

National Sciences and Engineering Research Council of Canada

Stanley M Grant Scholarship in Mathematics (CAD\$4350 over 2 awards)

2022 – 2023

UBC Department of Mathematics

Charles and Jane Banks Scholarship (CAD\$490 over 2 awards)

2021 – 2022

UBC Faculty of Science

Trek Excellence Scholarship (CAD\$1500)

2022

University of British Columbia

¹<https://personal.math.ubc.ca/~CLP/>

²<https://github.com/PrairieLearn/PrairieLearn/pull/4801>

³<https://github.com/PrairieLearn/PrairieLearn/pull/6790>