It was an incredible experience to learn about cutting-edge problems and techniques that I find interesting, and to have teammates and supervisors that shared the same interest. I was already set on being a professional mathematician in academia and FURSP only reinforced this goal.

William Verrault
2020 and 2021 participant
2022 FIELDS UNDERGRADUATE SUMMER RESEARCH PROGRAM

ELIGIBILITY CRITERIA

- Must be at least 18 years of age.
- Enrolled in full-time undergraduate or combined undergraduate/Master's program in a math-related area.
- Have a minimum of one semester remaining in your program.
- Must be available to complete a nine-week placement in Canada between July 4 - August 31, 2022.
- Possess a passport from your home country that is valid until at least December 2022.

Students accepted for the program will have most of their travel and on-site expenses covered by the Fields Institute.

PROGRAM TIMELINE

- FEBRUARY 14: Application deadline
- STARTING MARCH 5: Successful applicants are contacted and offered a placement
- MARCH-JUNE: Students make appropriate travel/visa arrangements.
- JULY 3: Check-in at student residence
- AUGUST 31: Program wraps up
- AUGUST 30: Mini-Conference
- AUGUST 1: Mid-term presentations
- JULY 4: Orientation and welcome

2022 PROJECTS

1. Boundary Integral Equations with Random Walks and Reinforcement Learning
2. Domain Adaptors and Cross-lingual Generalization
3. Extending Trace Theory for Concurrent Program Analysis
4. Brain Aneurysms
5. Knot Theory in Four Dimensions
6. Modelling Memory Circuits in Brain Health and Disease
7. Diffusion in Pipes and Thin Channel Surfaces
8. Comparative Connectomics Using Random Graph Theory
9. Spectral Unmixing of Biomedical Hyperspectral Imaging
10. Inference and Generation of Colexification Across Languages

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