# Louis Meunier



## **EXPERIENCES**

# **Undergraduate Course Assistant**

McGill University - Funded by TEAM

Sep '24 - Present

- Prepared and graded assignments for MATH326/376, Nonlinear Dynamics and Chaos (Fall 2024, 2025) for Prof. Antony Humphries, MATH255, Honours Analysis 2 (Winter 2025) for Prof. Jerome Vétois
- Tutor at the Math Department Helpdesk for 5 hours a week, offering drop-in help for various courses from the 100 to 400 level

## **Research Intern**

McGill University - Funded by SURA

May '25 - Present

- Summer research in probability and geometry theory under the supervision of Prof. Linan Chen
- Worked on extending results on the changes in geometry of random fields under diffeomorphisms known for 2 dimensions to general dimensions

#### Research Intern

McGill University - Funded by SURA

Research summary

May - Dec '24

- Summer research in theoretical numerical analysis under the supervision of Prof. Jean-Christophe Nave
- Worked on formalizing and characterizing discrete conservation laws arising from finite difference discretizations of partial differential equations

## **VP** - Events

McGill Diversity in Math

Sep '22 - Present

- Organize events to promote diversity in mathematics at McGill University, ranging from workshops to study sessions to speaker panels
- Membership includes around 230 undergraduate students and 20 graduate students
- Frequently communicate with McGill Math Department professors to enact meaningful changes for students, new opportunities, and promote inclusivity
- Previously served as First-Year Representative; President

Projects louismeunier.net/math

Various personal math and coding projects, on topics such stochastic differential equations, variational calculus, symmetry methods for PDEs, geometric visualizations, data analysis, etc.. Made using Mathematica, Julia, R, Python.

#### EDUCATION

2022 - present BSc. Honours Mathematics, McGill University

(GPA: 3.97)

Academic Awards: **Dean's Honour List** (2022, 2024), **Tomlinson Engagement Award for Mentoring** (2024, 2025), **Science Undergraduate Research Award** (2024, 2025)

## OTHER EXPERIENCES

**VP Academic** of McGill Society of Undergraduate Math Students (2024 - 2025) **World Cube Association Delegate** (2023 - Present)

**SKILLS** 

Programming: LaTeX, Typst, Mathematica, R, Julia, Python, Svelte, React, Next.js, Firebase, Go

Languages: English, French