

# Ryan Campbell

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## Research Interests

Multivariate extreme value theory and its applications, dependence modeling, stochastic processes, estimation of quantiles.

## Education

- 2021–2025    PhD Statistics, Lancaster University  
                    Thesis: Statistical Exploits of New Insights for Multivariate Extremes  
                    Supervisor: Jennifer L. Wadsworth
- 2019–2020    MSc Mathematics & Statistics, McGill University  
                    Thesis: Deterministic Gaussian Averaged Neural Networks  
                    Supervisor: Adam Oberman
- 2015–2018    BSc Mathematics, McGill University

## Papers

### Preprints

- [1] J. L. Wadsworth and **R. Campbell**. Statistical inference for multivariate extremes via a geometric approach, 2022. URL <https://arxiv.org/abs/2208.14951>
- [2] **R. Campbell**, C. Finlay, and A. M. Oberman. Adversarial Boot Camp: label free certified robustness in one epoch, 2020. URL <https://arxiv.org/abs/2010.02508>
- [3] **R. Campbell**, C. Finlay, and A. M. Oberman. Deterministic Gaussian averaged neural networks, 2020. URL <https://arxiv.org/abs/2006.06061>

## **Presentations**

June 2023    13th International Conference on Extreme Value Analysis

Title: A geometric approach for modelling negative asymptotic dependence

Location: Bocconi University, Milan, Italy

## **Teaching Assistantships**

### **Lancaster University**

Winter 2023	MATH 140	Statistics
Winter 2022	MATH 456/556	Extreme Value Theory
Winter 2022	MATH 235	Statistics II
Fall 2021	MATH330	Likelihood Inference

### **McGill University**

Fall 2020	MATH 208	Intro. to Statistical Computing
Fall 2019	MATH 597	Topics in Applied Mathematics: Mathematics of Machine Learning
Fall 2019	MATH 223	Linear Algebra

## **Research & Professional Activities**

- **Data Science Intern**

Desjardins General Insurance Group. Lévis, Québec.

June–December 2020 (part-time), January–June 2021 (full-time)

- **Undergraduate Summer Research**

Department of Mathematics & Statistics, McGill University.

Supervisor: Johanna Nešlehová

May–September 2018

## Honours, Awards, and Funding

2023–2027	FRQNT Doctoral Research Scholarship	CA\$25,334
2023–2026	NSERC Postgraduate Scholarship-Doctoral	CA\$63,000
2023	Nick Smith Prize	£500
2021–2025	EPSRC Mathematical Sciences studentship	£62,436 (minimum)
2020	Mitacs internship at Desjardins	CA\$13,000
2019–2020	Master’s degree funding	CA\$20,500
2019–2020	McGill University Graduate Excellence Award	CA\$3,400
2018	Science Undergraduate Research Award	CA\$6,500

## Languages & Skills

- Fluent in English and French.
- Proficient in R, Python (incl. PyTorch), Matlab, LaTeX, Java, HTML, Linux

## Extracurricular Activities

- **Treasurer**, Lancaster University Folk Society  
Lancaster University  
2023–2024 academic year.
- **VP Finance**, Graduate Student Association for Mathematics and Statistics (GSAMS)  
McGill University  
2019–2020 academic year.
- **Volunteer at the 2018 Statistical Society of Canada annual meeting**  
Roles: Setting up audio-visual equipment for presentations and directing conference attendees to presentations.  
Location: McGill University  
3–6 June 2018