

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 Extreme Value Analysis (EVA)

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