

## EDUCATION

<b>PhD Statistics</b> , University of Edinburgh, United Kingdom Supervisors: Dr. Ioannis Papastathopoulos, Prof. Gabriele C. Hegerl	<i>Sep. 2022 – Aug. 2026</i>
<b>Visiting PhD student</b> , King Abdullah University of Science and Technology, Saudi Arabia Supervisor: Prof. Raphaël Huser	<i>Feb. 2024 – May 2024 and Nov. 2025</i>
<b>MSc Mathematics and Statistics</b> , McGill University, Canada Supervisor: Prof. Christian Genest	<i>Sep. 2020 – June 2022</i>
<b>BSc Mathematics and Computer Science</b> , McGill University, Canada	<i>Sep. 2017 – May 2020</i>

## RESEARCH INTERESTS

- Extreme value theory, Multivariate and spatial statistics, Probabilistic forecasting
- Machine learning, generative modelling
- Environmental applications in the context of climate change.

## PUBLICATIONS

### Research

- De Monte, L., Huser, R., Papastathopoulos, I., and Richards, J. (2025) *Generative modelling of multivariate geometric extremes using normalising flows*, [arXiv](#) preprint.
- Papastathopoulos, I., De Monte, L., Campbell, R., and Rue, H. (2023) *Statistical inference for radially-stable generalized pareto distributions and return level-sets in geometric extremes*, [arXiv](#) preprint.

### Book chapter

- Auld, G., De Monte, L., Papastathopoulos, I. Time series in extremes. In M. de Carvalho, R. Huser, P. Naveau, and B. J. Reich, editors, *Handbook on Statistics of Extremes*. Chapman & Hall, 2026.

### Other

- Richards, J., De Monte, L. Review of “Risk Revealed: Cautionary Tales, Understanding and Communication” by Paul Embrechts, Marius Hofert, and Valérie Chavez-Demoulin. [JABES](#)(2024).
- Genest, C. and De Monte, L. (2021) *À la recherche de la Rondurie*, [Accromath](#), Volume 16 p.24-29.

### Thesis

- De Monte, L. *A Spatial Gamma-Gamma Model for the Statistical Postprocessing of Ensemble Weather Forecasts*. Master’s thesis. [McGill University](#), 2022.

## SOFTWARE

- Python code [geometricExtremesNF](#): Creator and maintainer. Based on De Monte et al. (2025)
- R package [geometricExtremes](#): Creator and maintainer. Based on Papastathopoulos et al. (2023).
- R code [TSExtremes](#): Collaborator. Based on Auld et al. (2026).

## PRESENTATIONS AND POSTER SESSIONS

### Invited

- Generative AI Modelling for Extreme Events, University of Edinburgh Generative AI Laboratory: *Generative modelling of multivariate geometric extremes using normalising flows* *Jun. 2025*
- Statistics seminar, University of Exeter: *Geometric extreme value theory – A normalising flows approach*. *Feb. 2025*
- CMStatistics: *Geometric extreme value theory – A normalising flows approach*. *Dec. 2024*
- CMStatistics: *Bayesian inference for radially-stable distributions*. *Dec. 2023*
- BIRS-IMAG Modern Statistical and Machine Learning Approaches for High-Dimensional Compound Spatial Extremes (short presentation): *Geometric inference for Hüsler–Reiss random vectors*. *May 2023*
- Séminaires de sciences de la décision HEC Montréal: *Multivariate extremes – A geometric Bayesian inference approach*. *Sep. 2023*

## Contributed

- 14<sup>th</sup> International Conference on Extreme Value Analysis: *Generative modelling of multivariate geometric extremes using normalising flows* Jun. 2025
- 15<sup>th</sup> International Meeting on Statistical Climatology: *Flood risk modelling using geometric extreme value theory.* Jun. 2024
- CfS Annual Conference 2024 (poster): *Multivariate radial Pareto distributions: a geometric approach to the statistical modelling of multivariate extremes.* Jun. 2024
- 13<sup>th</sup> International Conference on Extreme Value Analysis (poster): *Bayesian approach to geometric inference for multivariate extremes.* Jun. 2023

## AWARDS

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- School of Mathematics, University of Edinburgh** Sep. 2023
  - Full PhD Studentship: £27,600 tuition and £20,800 stipend per year
- Mitacs Canada** Jan. 2022
  - Funding for research on extreme value modeling in partnership with Hydro-Québec. \$30,000 (CAD)

## SCIENTIFIC ARTICLE REVIEWING

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**Journals:** Statistics and Computing.

## WORK EXPERIENCE

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- Hydro-Québec Research Institute (IREQ)** Jan. 2022 – Aug. 2022
  - Research partnership to develop methods for the statistical post-treatment of weather forecasts, specifically of extreme meteorological events.
- DataHub, National Bank of Canada** May 2019 - Sept. 2020
  - Development and automation of the official DataHub credit card data base.
  - Statistical modeling of credit card use and behaviors.

## RELEVANT EXPERIENCE

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- Postgraduate representative, School of Mathematics (University of Edinburgh)**  
Representative of the postgraduate students of the *School of Mathematics* Sep. 2024 – Aug. 2025
  - Intermediary between the students and the School administration.
  - Representing the *School of Mathematics* to a *Martingale foundation* event for future scholars.
- Teaching Assistantships (University of Edinburgh)**  
Tutoring workshops. Marking of assignments and examinations. List of courses:
  - MATH11199 – Python Programming Sep. 2025 – Dec. 2025
  - MATH08066 – Probability Sep. 2025 – Dec. 2025
  - MATH10064 – Multivariate Data Analysis Jan. 2025 – May. 2025
  - MATH10093 – Statistical Computing Jan. 2025 – May. 2025
  - MATH10096 – Applied Statistics Jan. 2025 – May. 2025
  - MATH11176 – Extended Statistical Programming Sep. 2023 – Dec. 2023
  - MATH11187 – Generalised Regression Models Sep. 2023 – Dec. 2023
  - MATH08066 – Probability Sep. 2023 – Dec. 2023
  - MATH10093 – Statistical Computing Jan. 2023 – May 2023
  - MATH08051 – Statistics Jan. 2023 – May 2023
- Teaching Assistantships (McGill University)**  
Preparation of tutorial sessions, office hours availabilities for course related questions. Marking of midterm and final exams, supervision of assignment marking. List of courses:
  - MATH 324 – Statistics Jan. 2022 – May 2022
  - MATH 323 – Probability Sep. 2021 – Dec. 2021
  - MATH 203 – Principles of Statistics Jan. 2021 – May 2021

**Statistics Helpdesk (McGill University)***Sep. 2020 – Dec. 2021*

Providing help to undergraduate students in Statistics and Probability. Theoretical and programming guidance for courses in the range MATH 2XX - 5XX.

**Undergraduate Project Guidance (McGill University)**

Guidance of three students towards the completion of an undergraduate project in extreme value theory.

- MATH 470

*Jan. 2022 – May 2022*

- MATH 410

*Jan. 2021 – May 2021 and Sep. 2021 – Dec. 2021***PROGRAMMING**

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**Languages:** R, Python, Julia, Bash, SQL, LaTeX.

**High-performance computing:** Eddie (University of Edinburgh), Ibex (King Abdullah University of Science and Technology), CASIR (Hydro-Québec).

**Cloud computing:** Microsoft Azure (National Bank of Canada).

**LANGUAGES**

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**Bilingual:** French, English.