Fabien Baeriswyl

Postdoctoral Researcher

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Institute of Discrete Mathematics and Geometry
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Professional Experience

Vienna University of Technology, Austria (2025–present)
Postdoctoral researcher (Project Assistant), FWF project *Limits of random networks* with Benedikt Stufler

Education

University of Lausanne, Switzerland, and Sorbonne University, France (2020–2025)
Joint PhD degree, Applied Mathematics and Business Analytics
Fields: Probability, Statistics
PhD Supervisors: Valérie Chavez-Demoulin, Olivier Wintenberger
Thesis: *Poisson cluster point processes: asymptotic properties and applications*

McGill University, Canada (2018–2020)
MSc in Mathematics and Statistics
Fields: Probability, Statistics
Supervisor: Johanna Nešlehová
Thesis: *Modelling of heatwaves and dependence assessment*

University of Lausanne, Switzerland (2013–2016)
BSc in Economics
Field: Economics, Econometrics

Publications and Projects

Sample-path large deviations for functionals of Poisson cluster processes
with Olivier Wintenberger,
submitted to Applied Probability Trust, April 2025,
arXiv preprint arXiv:2504.17363

Tail asymptotics and precise large deviations for some Poisson cluster processes
with Valérie Chavez-Demoulin and Olivier Wintenberger,
Advances in Applied Probability 57 (1), 204-240, 2025

Palm versions and tail configuration of marked Hawkes processes
with Hrvoje Planinić,
in preparation, submission expected December 2025

Local convergence of permutations
with Philipp Beltran and Benedikt Stufler,
in preparation, submission expected December 2025

Local large deviations of multi-type branching processes
with Benedikt Stufler,
in preparation, submission expected spring 2026

Teaching

University of Lausanne, Switzerland
Lead Teaching Assistant, **Statistics** (09.2023–06.2025)
Basic combinatorics, probability distributions, fundamentals of inferential statistics

Lead Teaching Assistant, **Risk Analytics** (09.2021–12.2024)
(Statistical) Extreme value theory, risk management, time series, applications to climate and actuarial datasets

Lead Teaching Assistant, **Quantitative Methods for Management** (09.2020–09.2022)
Regression and generalized linear models, data analysis, clustering, principal component analysis, structural equation models

Lead Teaching Assistant, **Programming Tools for Data Science** (09.2020–01.2021)
Introduction to `R`, package development, version control with Github

McGill University, Canada
Teaching Assistant, **MATH447: Introduction to Stochastic Processes** (01.2020 – 05.2020)
Conditional probability, generating functions, branching processes, random walks, Markov chains

Teaching Assistant, **MATH323: Probability** (09.2019 – 01.2020)
State spaces, events, conditional probability, basic combinatorics, inequalities, WLLN, CLT

Teaching Assistant, **MATH222: Calculus 3** (09.2018 – 05.2019)
Taylor series, Taylor's theorem, vector geometry, directional and partial derivatives, polar and spherical coordinates, multiple integrals

Awards and Scholarships

Confederate Solidarity Prize, HEC Faculty, University of Lausanne (2025)
Prize (CHF 2500) for excellence in PhD work

Mathematics and Statistics Graduate Excellence Award, McGill University (2018-2020)
Fully funded graduate student at McGill University

Faculty Prize, BSc Economics, HEC Faculty, University of Lausanne (2016)
Faculty prize (CHF 1000) for the best GPA in 3rd year (ex-aequo) in Economics

Selected Talks and Conferences

Random Geometry, Graphs and Extremes
IUC Dubrovnik (27.10–31.10.2025)

Probability and Statistics Seminar
Mathematics Laboratory of Besançon (12.05.2025)

(Not So) Informal Probability Seminar
University of Vienna (16.01.2025)

Probability Seminar
PMF, University of Zagreb (09.01.2025)

Validation of Predictions (VALPRED) 5
CNRS Center, Aussois (16.12–19.12.2024)

Young Researchers in Applied Mathematics Congress
ENS Lyon (28.10–30.10.2024)

Mathematics, Statistics, and Geometry of Extreme Events in High Dimensions
MF Oberwolfach (18.08–23.08.2024)

Journées de Probabilités 2024
Institute of Mathematics of Bordeaux (10.06–14.06.2024)

Young Statisticians Meeting 2024
Porquerolles (31.03–04.04.2024)

New Perspectives in the Theory of Extreme Values
IUC Dubrovnik (23.10–27.10.2023)

Extreme Value Analysis (EVA) 2023
Bocconi University, Milan (26.06–30.06.2023)

Validation of Predictions (VALPRED) 4
CNRS Center, Aussois (03.04–06.04.2023)

Heavy Tails, Long-Range Dependence, and Beyond
CIRM, Marseille (04.07–08.07.2022)

Validation of Predictions (VALPRED) 3
CNRS Center, Aussois (04.10–07.10.2021)

Extreme Value Analysis (EVA) 2021
University of Edinburgh (28.06–02.07.2021)

Academic Service

Review work: Journal of Mathematical Analysis and Applications (1x), Memoirs of the AMS (1x), Applied Probability Trust (3x), Annals of Applied Statistics (1x)

Operations Department Seminar (HEC, University of Lausanne): Organizer with Valérie Chavez-Demoulin (06.2021–06.2025)

HEC Faculty Council (University of Lausanne): representative of the intermediate body (10.2023–07.2025)

Western Switzerland University Conference, Statistics and Applied Probability Division: PhD students' representative (09.2021–02.2025)

Languages and Skills

French (native), English (advanced; C2), German (intermediate; B1)
MATLAB, LaTeX, R, Python

References

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UNIL-Chamberonne Campus
CH-1015 Lausanne

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LPSM, Jussieu Campus
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75005 Paris, France