Michaël Lalancette

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Education

Ph.D. in Statistics | 09/2017 – 2022 (expected) | University of Toronto
- GPA: 4.0/4.0
- Supervisor: Prof. Stanislav Volgushev

M.Sc. in Statistics | 09/2015 – 08/2017 | Université de Montréal
- GPA: 4.275/4.3
- Thesis: Convergence of a Random Walk Metropolis Algorithm for Bimodal Target Distributions
- Supervisor: Prof. Mylène Bédard

B.Sc. in Mathematics | 09/2012 – 05/2015 | Université de Montréal
- GPA: 3.69/4.3 (Award of academic excellence)

Publications

Published

Lalancette, M., Engelke, S. and Volgushev, S. (2021). Rank-based estimation under asymptotic dependence and independence, with applications to spatial extremes. *The Annals of Statistics 49(5)*, 2552–2576.

Preprint

Engelke, S., Lalancette, M. and Volgushev, S. (2021). Concentration bounds for the extremal variogram. (arXiv:2111.00840)

Lalancette, M. and Zimmerman, R. (2022). A new family of smooth copulas with arbitrarily irregular densities. (arXiv:2204.04336)

In preparation

Engelke, S., Lalancette, M. and Volgushev, S. (2022+). High-dimensional inference for extremal graphical models.

Engelke, S., Lalancette, M. and Volgushev, S. (2022+). Asymptotic analysis of the empirical variogram.

Bücher, A., Lalancette, M., Segers, J. and Volgushev, S. (2022+). The empirical copula process on classes of non-rectangular sets.

Berger, D., Lalancette, M., Lefebvre, G., Keezer, M.R. and Sylvestre, M.-P. (2022+). BoGlasso: Graphical Lasso estimation through the Bootstrap.

Talks and presentations

Invited talk, JSM 2022 | Washington | 08/2022
Title: High-dimensional inference for extremal graphical models

Invited talk, IMS 2022 | University of London | 06/2022
Title: High-dimensional inference for extremal graphical models

Contributed talk, SSC 2022 | Online | 06/2022
Title: High-dimensional inference for extremal graphical models

Invited seminar | Technical University of Munich | 11/2021
Title: The extremal graphical lasso

Invited seminar | Université Catholique de Louvain | 10/2021
Title: The extremal graphical lasso

Invited talk, Extreme Value Analysis 2021 | University of Edinburgh | 07/2021
Title: Concentration and asymptotic normality of the empirical variogram, with application to structure learning

Contributed talk, SSC 2021 | Online | 06/2021
Title: Rank-based estimation under asymptotic dependence and independence, with applications to spatial extremes

Contributed talk, SGS Research Day 2021 | Fields Institute | 04/2021
Title: Rank-based estimation under asymptotic dependence and independence, with applications to spatial extremes

Invited talk, SAMARI 2021 | Université de Montréal | 03/2021
Title: La théorie des valeurs extrêmes

Contributed talk, Extreme Value Analysis 2019 | University of Zagreb | 07/2019
Title: Rank-based M-estimation for tail dependence and independence

Poster presentation, SGS Research Day 2019 | Fields Institute | 04/2019
Title: Rank-based M-estimation for tail dependence and independence

Contributed talk, SSC 2018 | McGill University | 06/2018
Title: Convergence of a random walk Metropolis algorithm for bimodal target distribution

Scholarships and awards

Arts & Science Doctoral Excellence Scholarship | University of Toronto | 06/2021
Worth: 5 000$

Postgraduate Scholarship - Doctoral | NSERC of Canada | 09/2019 – 08/2021
Worth: 42 000$ (declined)

Probability Section Student Research Presentation Award | SSC | 06/2018
Awarded to the best student presentation in probability given at the 2018 SSC annual meeting. Worth: 500$

Ontario Graduate Scholarships | Government of Ontario | 09/2017 – 08/2021
Awarded four (4) times. Worth: 15 000$ each time

Doctoral Scholarship | FRQNT | 09/2017 – 08/2020
Worth: 60 000$

Teaching experience

Instructor | University of Toronto | 05/2019 – 06/2019
- STA247 (Probability with Computer Applications)

Teaching Assistant | University of Toronto | 09/2018 – 12/2021

- STA2111 (Graduate Probability I)
- STA490 (Statistical Consultation, Communication, and Collaboration)

Instructor | Université de Montréal | 01/2017 – 04/2017
- STT2100/STT6115 (Bayesian Decision Theory, Cross-listed graduate and undergraduate course)

Teaching Assistant | Université de Montréal | 01/2015 – 12/2016
- STT2000 (Survey Sampling Theory)
- MAT1978 (Probability and Statistics for Scientists and Engineers)
- STT3700 (Statistical Inference)
- STT1700 (Introduction to Statistics)
- MAT2717 (Stochastic Processes)
- STT1901 (Statistics for Social Scientists)

Service and leadership

Peer review work
I have served as a reviewer for the *Journal of Computational and Graphical Statistics*, the journal *Extremes* and the *Journal of the Royal Statistical Society: Series B*.

President, Statistics Graduate Students' Union | University of Toronto | 09/2018 – 08/2019
Responsibilities included supervising the executive committee's activities and communication with the department.

Chair, Organizing committee, SGS Research Day 2019 | Fields Institute | 10/2018 – 04/2019
Responsibilities included inviting speakers, securing space and funding, managing most of the local arrangements, supervising and animating the event. More information about the event on the webpage.

Committee Member, Association of Graduate Students in Mathematics and Statistics | Université de Montréal | 11/2016 – 08/2017
I was in charge of organizing meetings and social activities for graduate students.

Volunteer in various academic events
- DataFest, University of Toronto Scarborough, 05/2019
- Canadian Undergraduate Mathematics Conference, Montréal, 07/2017
- Congrès MATh.en.JEANS, Montréal | 03/2017

Computer knowledge

Advanced level: R, LaTeX

Introductory to intermediate level: C, C++, html/css, markdown, SAS, SPSS, MATLAB, Mathematica

Personal information

Languages: French (mother tongue), English (fluent), German (introductory)

Citizenship: Canadian

Last updated on: April 19, 2022