CV

Johan Larsson

October 10, 2023

Holger Crafoords Ekonomicentrum 1
Tycho Brahes väg 1
Box 743, 2207 Lund, Sweden

johan.larsson@stat.lu.se
+46 730353836

larssonjohan.com
github.com/jolars
ORCID Profile
Google Scholar Profile

1 Education

2018 – now **PhD in Statistics**, *Department of Statistics, Lund University*
Supervisors: *Jonas Wallin (main), Małgorzata Bogdan (co-supervisor)*

2018 **Bachelor's Degree in Statistics**, *Lund University*
Supervisor: *Peter Gustafsson*
Title: *eulerr: Area-proportional euler diagrams with ellipses*

2 Publications

2.1 Published Articles

[1] **J. Larsson**, Q. Klopfenstein, M. Massias, and J. Wallin, "Coordinate descent for SLOPE," in *Proceedings of the 26th International Conference on Artificial Intelligence and Statistics*, F. Ruiz, J. Dy, and J.-W. van de Meent, Eds., ser. Proceedings of Machine Learning Research, vol. 206, Valencia, Spain: PMLR, Apr. 25–27, 2023, pp. 4802–4821. [Online]. Available: https://proceedings.mlr.press/v206/larsson23a.html.

[2] **J. Larsson** and J. Wallin, "The Hessian screening rule," in *Advances in Neural Information Processing Systems 35*, S. Koyejo, S. Mohamed, A. Agarwal, D. Belgrave, K. Cho, and A. Oh, Eds., vol. 35, New Orleans, USA: Curran Associates, Inc., Nov. 28–Dec. 9, 2022, pp. 15 823–15 835, ISBN: 978-1-71387-108-8. [Online]. Available: https://papers.nips.cc/paper%5C_files/paper/2022/hash/65a925049647eab0aa06a9faf1cd470b-Abstract-Conference.html.

[3] T. Moreau, M. Massias, A. Gramfort, P. Ablin, P.-A. Bannier, B. Charlier, M. Dagréou, T. D. la Tour, G. Durif, C. F. Dantas, Q. Klopfenstein, **J. Larsson**, E. Lai, T. Lefort, B. Malézieux, B. Moufad, B. T. Nguyen, A. Rakotomamonjy, Z. Ramzi, J. Salmon, and S. Vaiter, "Benchopt: Reproducible, efficient and collaborative optimization benchmarks," in *Advances in Neural Information Processing Systems 35*, S. Koyejo, S. Mohamed, A. Agarwal, D. Belgrave, K. Cho, and A. Oh, Eds., vol. 35, New Orleans, USA: Curran Associates, Inc., Nov. 28–Dec. 9, 2022, pp. 25 404–25 421, ISBN: 978-1-71387-108-8. [Online]. Available: https://proceedings.neurips.cc/paper%5C_files/paper/2022/hash/a30769d9b62c9b94b72e21e0ca73f338-Abstract-Conference.html.

[4] **J. Larsson**, "Look-ahead screening rules for the lasso," in *22nd European Young Statisticians Meeting – Proceedings*, Andreas Makridis, Fotios S. Milienos, Panagiotis Papastamoulis, Christina Parpoula, and Athanasios Rakitzis, Eds., Athens, Greece: Panteion University of Social and Political Sciences, Sep. 6–10, 2021, pp. 61–65, ISBN: 978-960-7943-23-1. [Online]. Available: https://www.eysm2021.panteion.gr/files/Proceedings%5C_EYSM%5C_2021.pdf.

[5] **J. Larsson**, M. Bogdan, and J. Wallin, "The strong screening rule for SLOPE," in *Advances in Neural Information Processing Systems 33*, H. Larochelle, M. Ranzato, R. Hadsell, M. F. Balcan, and H. Lin, Eds., vol. 33, Virtual: Curran Associates, Inc., Dec. 6, 2020–12, pp. 14 592–14 603. [Online]. Available: https://papers.nips.cc/paper%5C_files%20/paper/2020/hash/a7d8ae4569120b5bec12e7b6e9648b86-Abstract.html.

[6] **J. Larsson** and P. Gustafsson, "A case study in fitting area-proportional Euler diagrams with ellipses using eulerr," in *Proceedings of International Workshop on Set Visualization and Reasoning*, vol. 2116, Edinburgh, United Kingdom: CEUR Workshop Proceedings, Jun. 2018, pp. 84–91.

2.2 Theses

[7] **J. Larsson**, "eulerr: Area-proportional Euler diagrams with ellipses," Bachelor thesis, Lund University, Lund, Sweden, 2018, 33 pp. [Online]. Available: http://lup.lub.lu.se/student-papers/record/8934042.

3 Talks

2021, Oct 27 **Designing a Distance-Based Course in Data Visualizations: Lessons Learned**, *Cramér Society Fall Meeting*

2021, Sep 21 **The Hessian Screening Rule and Adaptive Lasso Paths**, *Statistics Seminar at the Department of Mathematical Statistics, Chalmers/Gothenburg University*

2021, Sep 9 **Look-Ahead Screening Rules for the Lasso**, *European Young Statisticians Meeting (EYSM) 2021*

2020, May 8 **The Strong Screening Rule for SLOPE**, *Statistical Learning Seminar*

2018, June 18 **A Case Study in Fitting Area-Proportional Euler Diagrams with Ellipses Using eulerr**, *SetVR 2018*

4 Teaching

4.1 Instructor

2020–2022 **Data Visualization**, *Department of Statistics, Lund University*

2019–2021 **Statistics: Basic Course**, *Department of Statistics, Lund University*

4.2 Teaching Assistant

2021 **Introduction to R Programming**, *Department of Statistics, Lund University*

2019–2020 **Data Mining and Visualization**, *Department of Statistics, Lund University*

2019–2021 **Statistics for Fire Engineers**, *Department of Statistics, Lund University*

2019 **Artificial Intelligence and Deep Learning Methods**, *Department of Statistics, Lund University*

4.3 Course Development

2020–2023 **Data Visualization**, *Department of Statistics, Lund University*
Distance-based course in data visualization for students on the undergraduate level.

5 Supervision and Mentorship

2022 **Main Supervisor, Master's Thesis**, *Data Analysis and Business Analytics, The Department of Statistics, Lund University*

2019 – 2021 **Google Summer of Code**, *The R Project for Statistical Computing*
Students: *Qincheng Liu (2019)* , *Akarsh Goyal (2020)*

6 Referee Service

- Advanced in Neural Information Processing (NeurIPS), 2021, 2022. ISSN: 1049-5258
- International Conference for Machine Learning (ICML), 2022. ISSN: 2640-3498

7 Comittee Service

2020 – 2022 **Statistical Learning Seminar Series**
https://statistical-learning-seminars.github.io/
Main organizer

8 Software

SLOPE Generalized linear models with the sorted L1 norm
https://CRAN.R-project.org/package=SLOPE

benchopt Reproducible, efficient and collaborative optimization benchmarks
https://benchopt.github.io/

eulerr Area-proportional Euler diagrams with ellipses
https://CRAN.R-project.org/package=eulerr

qualpalr Automatic generation of qualitative color palettes using color difference algorithms
https://CRAN.R-project.org/package=tactile

9 Scholarships

2018 **Google Summer of Code**, *The R Project for Statistical Computing*
Project: *Fast Sparse Linear Models for Big Data with SAGA*

10 Contracted Work

2021 **WHO Antimicrobial Resistance Dashboard**
Contracted work to develop and deploy a visualization dashboard for WHO's Antimicrobial Resistance team in Europe.