CV

# Johan Larsson

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R<sup>6</sup> researchgate.net/profile/Johan\_Larsson7
P publons.com/a/1299032
O github.com/jolars

### 1 Education

2018 - now PhD in Statistics, Department of Statistics, Lund University

Supervisor: Jonas Wallin

2018 Bachelor's Degree in Statistics, Lund University

Supervisor: Peter Gustafsson

Title: eulerr: Area-proportional euler diagrams with ellipses

2015 - 2017 Master's Degree in Medical Science, Lund University

Supervisor: Eva-Maj Malmström

Title: Gym-based exercise therapy for patients with persistent neck pain: A research

protocol for a randomized controlled trial

2011 - 2014 Bachelor's Degree in Physical Therapy, Lund University

Supervisor: Amanda Lundvik Gyllensten

Title: The professional role and technology use among physical therapists in Tokyo: A

qualitative interview study

## 2 Research

2015 - 2018 Research Assistant, SensoriMotor Integration Lund (SMIL): collaborative effort be-

tween Lund University, Skåne University Hospital, Malmö University, and Umeå Univer-

sity

2015 Research Assistant, The Department of Pain Rehabilitation, Skåne University Hospital

2014 Research Assistant, Department of Clinical Sciences, Lund University

# 3 Scholarships

2018 Google Summer of Code, The R Project for Statistical Computing

Project:

Fast Sparse Linear Models for Big Data with SAGA

### 4 Publications

### 4.1 Published Articles

[1] B. Chrcanovic, **J. Larsson**, E.-M. Malmström, H. Westergren, and B. Häggman-Henrikson, "Exercise therapy for whiplash-associated disorders: A systematic review and meta-analysis," *Scandinavian Journal of Pain*, Sep. 27, 2021, ISSN: 1877-8879. DOI: 10.1515/sjpain-2021-0064. [Online]. Available: https://www.degruyter.com/document/doi/10.1515/sjpain-2021-0064/html (visited on 09/28/2021).

- [2] 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\_EYSM\_2021.pdf.
- [3] 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. 14592–14603. [Online]. Available: https://proceedings.neurips.cc/paper/2020/file/a7d8ae4569120b5bec12e7b6e9648b86-Paper.pdf.
- [4] **J. Larsson**, H. Westergren, B. Häggman-Henrikson, A. Ilgunas, A. Wänman, and E.-M. Malmström, "The feasibility of gym-based exercise therapy for patients with persistent neck pain," *Scandinavian Journal of Pain*, vol. 20, no. 2, pp. 261–272, Apr. 2020, ISSN: 1877-8879. DOI: 10.1 515/sjpain-2019-0085.
- [5] S. Åkerblom, **J. Larsson**, E.-M. Malmström, E. Persson, and H. Westergren, "Acceptance: A factor to consider in persistent pain after neck trauma," *Scandinavian Journal of Pain*, vol. 19, no. 4, pp. 733–741, 2019, ISSN: 1877-8879. DOI: 10.1515/sjpain-2019-0021.
- [6] **J. Larsson**, "Mapping physical therapy research: The geographical affiliations and methodological quality of 2,959 randomized controlled trials," *Physiotherapy Theory and Practice*, vol. 34, no. 9, pp. 723–729, Jan. 2018, ISSN: 1532-5040. DOI: 10.1080/09593985.2018.1423657.
- [7] **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.
- [8] H. Westergren, J. Larsson, M. Freeman, A. Carlsson, A. Jöud, and E.-M. Malmström, "Sexbased differences in pain distribution in a cohort of patients with persistent post-traumatic neck pain," en, *Disability and Rehabilitation*, vol. 40, no. 9, pp. 1085–1091, Jan. 2017. DOI: 10.1080/09638288.2017.1280543.
- [9] **J. Larsson**, M. Miller, and E. Ekvall Hansson, "Vestibular asymmetry increases double support time variability in a counter-balanced study on elderly fallers," *Gait & Posture*, vol. 45, pp. 31–34, Mar. 2016, ISSN: 0966-6362. DOI: 10.1016/j.gaitpost.2015.12.023.
- [10] **J. Larsson**, E. Ekvall Hansson, and M. Miller, "Increased double support variability in elderly female fallers with vestibular asymmetry," eng, *Gait & Posture*, vol. 41, no. 3, pp. 820–824, Mar. 2015, ISSN: 1879-2219. DOI: 10.1016/j.gaitpost.2015.02.019.

#### 4.2 Unpublished Articles

[11] **J. Larsson**. "Look-ahead screening rules for the lasso." arXiv: 2105.05648 [cs, stat]. (Jun. 29, 2021), [Online]. Available: http://arxiv.org/abs/2105.05648 (visited on 09/14/2021).

[12] J. Larsson and J. Wallin. "The Hessian screening rule." arXiv: 2104.13026 [cs, stat]. (Apr. 27, 2021), [Online]. Available: http://arxiv.org/abs/2104.13026 (visited on 04/29/2021).

[13] J. Larsson, M. Bogdan, and J. Wallin. "The strong screening rule for SLOPE." arXiv: 2005.03730 [cs, stat]. (May 7, 2020), [Online]. Available: http://arxiv.org/abs/2005.03730 (visited on 05/17/2020).

#### 4.3 Theses

- [14] **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.
- [15] —, "Gym-based exercise therapy for patients with persistent neck pain: A research protocol for a randomized controlled trial," Master's Thesis, Lund university, Lund, Sweden, Jan. 2017.
- [16] D. Najafi and J. Larsson, "The professional role and technology use among physical therapists in Tokyo: A qualitative interview study," Bachelor Thesis, Lund University, Lund, Sweden, 2014.

### 4.4 Conference Abstracts

- [17] **J. Larsson**, H. Westergren, and E.-M. Malmström, "Pain distribution after neck traumas: An analysis of 745 consecutive patients with persistent neck pain," in *IASP 2016: The World Congress on Pain*, IASP, Ed., Yokohama, Japan, Sep. 2016.
- [18] H. Westergren, J. Larsson, and E.-M. Malmström, "Pain distribution in 745 consecutive patients with persistent pain after whiplash trauma," in *EFIC 2015: Translating Evidence into Practice*, EFIC, Ed., Vienna, Austria, Sep. 2015.

#### 5 Talks

- 2021, Oct 27 Designing a Distance-Based Course in Data Visualizations: Lessons Learned,  $Cram\acute{e}r$  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

# 6 Teaching

#### 6.1 Instructor

- 2020–2021 Data Visualization, Department of Statistics, Lund University
- 2019–2021 Statistics: Basic Course, Department of Statistics, Lund University

### 6.2 Teaching Assistant

Introduction to R Programming, Department of Statistics, Lund University

Data Mining and Visualization, Department of Statistics, Lund University

Statistics for Fire Engineers, Department of Statistics, Lund University

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

University

### **6.3 Course Development**

2020 Data Visualization, Department of Statistics, Lund University

Distance-based course in data visualization for students on the undergraduate level.

### 7 Contracted Work

2021 WHO Antimicrobial Resistance Dashboard

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

### 8 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 School

Students: QinchengLiu (2019), AkarshGoyal (2020)

2017 - 2019 Co-Supervisor, Bachelor's Thesis, The Department of Orofacial Pain and Jaw Func-

tion, Malmö University

2017 – 2018 Co-Supervisor, Master's Thesis, The Department of Orofacial Pain and Jaw Function, Malmö University

### 9 Referee Service

- International Conference for Machine Learning (ICML), ISSN: 2640-3498
- Archives of Physical Medicine and Rehabilitation (ISSN: 0003-9993)

See publons.com/a/1299032 for additional information.

### 10 Comittee Service

2020 Statistical Learning Seminar Series, https://statistical-learning-seminars.github.io/

Member of organizational committee

## 11 Software

 ${\bf SLOPE} \quad \ {\bf Generalized \ Linear \ Models \ Penalized \ with \ SLOPE}$ 

https://CRAN.R-project.org/package=SLOPE

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