CV

Johan Larsson

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Holger Crafoords Ekonomicentrum 1
Tycho Brahes väg 1
Box 743, 2207 Lund, Sweden
johan.larsson@stat.lu.se
+46 730353836

larssonjohan.com
orcid.org/0000-0002-4029-5945
researchgate.net/profile/Johan_Larsson7
publons.com/a/1299032
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 between Lund University, Skåne University Hospital, Malmö University, and Umeå University*

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] **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://proceedings.neurips.cc/paper/2020/file/a7d8ae4569120b5bec12e7b6e9648b86-Paper.pdf.

[2] **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: 10.1515/sjpain-2019-0085.

[3] 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.

[4] **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.

[5] **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.

[6] H. Westergren, **J. Larsson**, M. Freeman, A. Carlsson, A. Jöud, and E.-M. Malmström, "Sex-based 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.

[7] **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.

[8] **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

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

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

4.3 Theses

[10] **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.

[11] ——, "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.

[12] 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

[13] **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.

[14] 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 Teaching

5.1 Instructor

2020–2021 **Data Visualization**, *Department of Statistics, Lund University*

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

5.2 Teaching Assistant

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

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

5.3 Course Development

2020 **Data Visualization**, *Department of Statistics, Lund University*
Design of a distance-based course in data visualization for students on the undergraduate level.

6 Supervision and Mentorship

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 Function, Malmö University*

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

7 Referee Service

- Gait & Posture (ISSN: 0966-6362)
- Journal of Clinical Interventions in Aging (ISSN: 1178-1998)
- Spine (ISSN: 0362-2436)

- Archives of Physical Medicine and Rehabilitation (ISSN: 0003-9993)

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

8 Comittee Service

2020 **Statistical Learning Seminar Series**, https://statistical-learning-seminars.github.io/
Member of organizational committee

9 Talks

2021, Sep 9 **Look-Ahead Screening Rules for the Lasso**, *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*

10 Software

SLOPE Generalized Linear Models Penalized with SLOPE
https://CRAN.R-project.org/package=SLOPE

sgdnet Elastic Net-regularized Generalized Linear Models via the efficient SAGA algorithm
https://github.com/jolars/sgdnet

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