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Johan Larsson

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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] 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](https://doi.org/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. 14 592–14 603. [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: [10.1515/sjpain-2019-0085](https://doi.org/10.1515/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](https://doi.org/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](https://doi.org/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, “Sex-based differences in pain distribution in a cohort of patients with persistent post-traumatic neck pain,” in *Disability and Rehabilitation*, vol. 40, no. 9, pp. 1085–1091, Jan. 2017. DOI: [10.1080/09638288.2017.1280543](https://doi.org/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](https://doi.org/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,” in *Gait & Posture*, vol. 41, no. 3, pp. 820–824, Mar. 2015, ISSN: 1879-2219. DOI: [10.1016/j.gaitpost.2015.02.019](https://doi.org/10.1016/j.gaitpost.2015.02.019).

4.2 Unpublished Articles

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

- [12] **J. Larsson** and J. Wallin. (Apr. 27, 2021). “The Hessian screening rule.” arXiv: [2104.13026](https://arxiv.org/abs/2104.13026) [cs, stat], [Online]. Available: <http://arxiv.org/abs/2104.13026> (visited on 04/29/2021).
- [13] **J. Larsson**, M. Bogdan, and J. Wallin. (May 7, 2020). “The strong screening rule for SLOPE.” arXiv: [2005.03730](https://arxiv.org/abs/2005.03730) [cs, stat], [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, 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

- 2019–2020 **Data Mining and Visualization**, *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 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*

8 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.

9 Comittee Service

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

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>