Curriculum vitae

Personal details

Name: Helske, Jouni Veikko Taneli (previously Lehtonen)
ORCID: 0000-0001-7130-793X
Year of birth: 1983
Nationality: Finnish
Date of CV: 2.8.2021

Degrees

9/12/2015	PhD in Statistics, University of Jyväskylä, Finland
25/8/2010	MSc in Statistics, University of Jyväskylä, Finland
28/7/2010	BSc in Statistics, University of Jyväskylä, Finland

Current employment

1/9/2020–present   **Senior Researcher (yliopistotutkija)**
Department of Mathematics and Statistics, University of Jyväskylä, **Finland**

Previous work experience

1/9/2019–31/8/2019   **Postdoctoral Researcher**
Department of Mathematics and Statistics, University of Jyväskylä, **Finland**

16/10/2017–31/8/2019   **Postdoctoral Researcher in Visual Analytics**
Department of Science and Technology, Linköping University, **Sweden**

1/1/2016–15/10/2017   **Postdoctoral Researcher**
Department of Mathematics and Statistics, University of Jyväskylä, **Finland**

1/9/2010 –31/12/2015   **Doctoral Student**
Department of Mathematics and Statistics, University of Jyväskylä, **Finland**

1/6/2010 –31/8/2010   **Research Assistant**
Department of Signal Processing, Tampere University of Technology, **Finland**

International research visits:

9/2016–7/2017	Department of Statistics, University of Oxford, **United Kingdom**
9–10/2017	Department of Information Technology, Uppsala University, **Sweden**

Career breaks

1/10/2013–31/8/2014   Parental leave between October 2013 and August 2014.

Research funding and grants

2020	Academy of Finland: **Project funding for a consortium project**: Towards well-informed decisions: Predicting long-term effects of policy reforms on life trajectories (PREDLIFE) (9/2020–8/2024). Decision numbers 331816 and 331817. Consortium PI Satu Helske (University of Turku) 280,000€ **Subconsortium-PI** Jouni Helske (University of Jyväskylä) 280,000€
2013	Emil Aaltonen Foundation: **Personal scholarship** for full-time doctoral studies. 25000€
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Research output

Since 2010 I have **authored 13 peer-reviewed, 3 non-peer-reviewed scientific articles or book chapters**, and have 3 papers currently under review. These papers have been cited 297 times with h-index 7 (Google Scholar, 2.8.2021).

In addition to these, I have **produced nine R statistical software packages** currently at The Comprehensive R Archive Network (CRAN) as a result of my research, most notably the R packages KFAS, seqHMM, and bssm for exponential family state space modelling, multivariate hidden Markov modelling, and Bayesian non-Gaussian states space modelling respectively. These nine packages have thousands of downloads per month: https://www.jyu.fi/science/en/maths/research/infrastructure/r-packages-created-at-the-department

Research supervision and leadership experience

- I am the main supervisor of Tiia-Maria Pasanen who started her PhD studies in statistics in August 2020 at the University of Jyväskylä.
- I am the co-supervisor (main supervisor until March 2021) of Lauri Valkonen who started his PhD studies in statistics in August 2020 at the University of Jyväskylä.
- I was the unofficial co-advisor of statistics PhD student Gurjinder Mohan at Oxford University in 2016-2017.
- I lead the statistics subproject of the Academy Finland project PREDLIFE employing postdoctoral researcher Santtu Tikka.

Teaching merits

- Lecturer in Statistical inference 1. University of Jyväskylä, 2021 (upcoming).
- Lecturer in Bayesian statistics 1. University of Jyväskylä, 2020 and 2021 (upcoming).
- Lecturer in Generalized linear models 2. University of Jyväskylä, 2020.
- Lecturer in R programming. University of Jyväskylä, 2x2012, 2013, 2014, 2015.
- A guest lecture on Computationally efficient state space modelling in Graduate Lecture series (in English). University of Oxford (23 February 2017).
- A lecture on state state space models in Time series analysis. University of Jyväskylä, 2015.
- Organizer of Book seminar of Statistical Programming in C++ and R (in English). University of Jyväskylä, 2013.
- Lab supervision in Stochastic simulation (in English). University of Jyväskylä,2016.
- Lab supervision in Basics in statistics 1, University of Jyväskylä, 2008, 2010, 2011.

- Lab supervision in Sampling methods, University of Jyväskylä, 2011.
- Lab supervision in Advanced course in statistics, University of Jyväskylä, 2010.
- Lab supervision in Basic course in statistics, University of Jyväskylä, 2008.

Patents, inventions, awards and honours

2016   Longitudinal Data Analysis Contest Award, LaCOSA II Conference, Lausanne, Switzerland.
2015   Best poster award, UseR! 2015 Conference, Aalborg, Denmark.

Other key scientific or academic merits

Reviewer for
- Australian & New Zealand Journal of Statistics, Industrial & Engineering Chemistry Research, Stat, Stochastic Environmental Research and Risk Assessment, Sensors, Applied Computational Intelligence and Soft Computing, Mathematical and Computational Applications, Mathematics, R Journal, Journal of Statistical Software, and CHI 2019 conference.

Member of the organizing committee for
- Novel approaches to numerical challenges related to environmental monitoring, 2015, Jyväskylä, Finland.
- Statistical Days 2013, 2013, Jyväskylä, Finland.
- Seminar on Current Doctoral Research in Biostatistics, Statistics and Related Areas, 2011, Helsinki, Finland.

14. Scientific and societal impact

- 2016-2018 I provided statistical consultancy for the Finnish Environment Institute on project SAVE which studied the effects of gypsum in agriculture.
- I have collected open access data for assessing the effects of visualization on statistical inference, available at https://github.com/helske/statvis.
- Codes for reproducing the analysis of my recent and upcoming publications are available online at github.com/helske.