

Curriculum Vitae: Samuel Wiqvist

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Personal Information

Born: July 31, 1991

Gender: Male

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Current Position

Ph.D. student at the Div. of Mathematical Statistics, Centre for Mathematical Sciences, Lund University. I started the Ph.D. program on September 1st, 2016, and expected to graduate in September 2021. My main advisor is Dr. Umberto Picchini.

Umberto Picchini's adress: mailing address:
Mathematical Sciences - Chalmers University of Technology and University of Gothenburg
SE-412 96 Gothenburg, Sweden
Email: picchini@chalmers.se

Research Interests

Bayesian inference, intractable likelihood problems, and Monte Carlo methods.

Appointments Held

2015-2015 Intern, Ellevio AB.

Education

2016 MSc in Engineering Mathematics, Faculty of Engineering, Lund University.
Master's thesis: *An Adaptive Iterated Filtering Algorithm*, defended on the 10th of June 2016. The thesis treated maximum likelihood-based parameter estimations of partially observed Markov process models, and a new version of the Iterated Filtering Algorithm was introduced.

2010 Upper-secondary school, Natural Science Program, Katedralskolan, Lund, (Sv. gymnasieexamen).

Publications

PRE-PRINTS

- [1] **Wqvist, S.**, Frelsen, J., & Picchini, U. (2021). Sequential Neural Posterior and Likelihood Approximation. arXiv preprint arXiv:2102.06522.
- [2] **Wqvist, S.**, Picchini, U., Forman, J. L., Lindorff-Larsen, K., & Boomsma, W. (2018). Accelerating delayed-acceptance Markov chain Monte Carlo algorithms. arXiv preprint arXiv:1806.05982.

PEER-REVIEW PUBLICATIONS

- [1] **Wqvist, S.**, Golightly, A., McLean, A. T., & Picchini, U. (2021). Efficient Efficient inference for stochastic differential mixed-effects models using correlated particle pseudo-marginal algorithms. *Computational Statistics & Data Analysis*, 157, 107151.
- [2] **Wqvist, S.**, Mattei, P. A., Picchini, U., & Frelsen, J. (2019). Partially Exchangeable Networks and Architectures for Learning Summary Statistics in Approximate Bayesian Computation. In *International Conference on Machine Learning* (pp. 6798-6807). PMLR.

Talks

- 2019 MC 20: Workshop on Numerical Methods for Stochastic Differential Equations *Efficient inference for stochastic differential equation mixed-effects models using correlated particle pseudo-marginal algorithms*
- 2019 Pioneers of Probabilistic Programming (Meet-up group, Copenhagen) *An Introduction to Bayesian Statistics and Approximate Bayesian Computing*
- 2019 Bayes@Lund. *Automatic learning of summary statistics for Approximate Bayesian Computation using Partially Exchangeable Networks.*
- 2019 Statistics and Biomathematics Seminar, Dept. Mathematical Sciences, Chalmers University of Technology and University of Gothenburg. *Automatic Learning of Summary Statistics for Approximate Bayesian Computation Using Deep Learning.*

Teaching

- Spring 2021 Computer laboratory assistant, *MASM11/FMSN50 Monte Carlo and Empirical Methods for Stochastic Inference*, Lund University.
- Fall 2020 Computer laboratory assistant, *FMSN60/MASM18 Financial Statistics*, Lund University.
- Spring 2020 Computer laboratory assistant, *MASM11/FMSN50 Monte Carlo and Empirical Methods for Stochastic Inference*, Lund University.
- Fall 2019 Computer laboratory assistant, *FMSN60/MASM18 Financial Statistics*, Lund University.
- Fall 2019 Teaching assistant and computer laboratory assistant, *FMSF15/MASCo3 Markov processes*, Lund University.
- Spring 2019 Computer laboratory assistant, *MASM11/FMSN50 Monte Carlo and Empirical Methods for Stochastic Inference*, Lund University.
- Fall 2018 Computer laboratory assistant, *FMSN60/MASM18 Financial Statistics*, Lund University.
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- Spring 2018 Computer laboratory assistant, *MASM11/FMSN50 Monte Carlo and Empirical Methods for Stochastic Inference*, Lund University.
- Fall 2017 Computer laboratory assistant, *FMSN60/MASM18 Financial Statistics*, Lund University.
- Fall 2017 Teaching assistant and computer laboratory assistant, *FMSF15/MASCo3 Markov processes*, Lund University.
- Spring 2017 Teaching assistant and computer laboratory assistant, *FMS035 Mathematical Statistics, Basic Course*, Faculty of Engineering, Lund University.
- Fall 2016 Teaching assistant and computer laboratory assistant, *FMS032 Mathematical Statistics, Basic Courses*, Faculty of Engineering, Lund University.
- Spring 2016 Computer laboratory assistant, *FMS035 Mathematical Statistics, Basic Course*, Lund University.
- Fall 2015 Teaching assistant and computer laboratory assistant, *FMS086 Mathematical Statistics, Faculty of Engineering*, Lund University.

Positions of Trust

- 2013-2014 Head of Student Council of the Engineering Mathematics program.
- 2013-2014 Student representative in the the Program Management Group of the Engineering Mathematics program.
- 2012-2013 Head of fair and logistics FARAD 2013, (FARAD is a career fair organized by students).