Jan-Ole Koslik

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EDUCATION

PhD in Statistics	2023 – today
Bielefeld University, Germany	

MSc Statistical Science	2021 – 2023
Bielefeld University, Germany	
Grade: 1.0; graduated first of my class	

BSc Economics (intermediate studies)	2020 – 2021
Bielefeld University, Germany	

Study Abroad	2019
Budapest Business School, Hungary	

BA Business Administration	2017 – 2020
Bielefeld University of Applied Sciences, Germany	
Grade: 1.4	

EMPLOYMENT

Research Associate Statistics and Data Analysis Group	2023 – today
Bielefeld University, Germany	

Research Assistant Statistics and Data Analysis Group	2022 – 2023
Bielefeld University, Germany	

Working Student Pricing Intelligence	2021 – 2022
CLAAS KGaA mbH, Germany	

Intern Market Intelligence	2020
CLAAS KGaA mbH, Germany	

PUBLICATIONS

1. Michels, R., **Koslik, J.-O.** (2024). On the combination of data smoothing and Markov-switching models. *Journal of the Royal Statistical Society – Series C: Applied Statistics*, qlad110.

PREPRINTS

Bachons, R., **Koslik, J.-O.**, Michels, R., Ötting, M. (2024). PEP: a tackle value measuring the prevention of expected points. Preprint, arXiv:2407.08508.

Mews, S., **Koslik, J.-O.**, Langrock, R. (2024). How to build your latent Markov model — the role of time and space. Preprint, arXiv:2406.19157.

Koslik, J.-O. (2024). Hidden semi-Markov models with inhomogeneous state dwell-time distributions. Preprint, arXiv:2405.13553.

Koslik, J.-O., Feldmann, C.C., Mews, S., Michels, R., Langrock, R. (2023). Inference on the state process of periodically inhomogeneous hidden Markov models for animal behaviour. Preprint, arXiv:2312.14583.

Dyck, J., **Koslik, J.-O.**, Sauzet, O. (2023). EgoCor: an R package to fit exponential semi-variograms to model the local spatial correlation structure of health outcomes. Preprint, arXiv:2309.12979.

SOFTWARE

I have developed and participated in developing software packages for the R programming language:

- **LaMa**: Fast and convenient likelihood evaluation for latent Markov models like HMMs, HSMMs, SSMs and point processes. https://cran.r-project.org/web/packages/LaMa
- **EgoCor**: Simple Presentation of Estimated Exponential Semi-Variograms. https://cran.r-project.org/web/packages/EgoCor

TEACHING

Workshops

Using hidden Markov models to uncover ecological state dynamics from biologging data
One-day workshop in Tokyo, Japan.   March 2024

Tutorials

Bielefeld University   2023 – today
- Mathematics (Bachelor level)
- Hidden Markov Models (Master level)
- Statistical Consulting (Master level)
- Generalised Linear Models (Master level)

Bielefeld University of Applied Sciences   2018 – 2020
- Statistics for Economists (Bachelor level)
- Mathematics for Economists (Bachelor level)

GRANTS AND AWARDS

German public-private scholarship (Deutschlandstipendium)   2019 – 2020 and 2022 – 2023

Mobility grant of the Bielefeld Graduate School in Theoretical Sciences (BGTS)

PRESENTATIONS

Efficient smoothness selection for nonparametric Markov-switching models via quasi restricted maximum likelihood
Invited talk, University of Göttingen, Germany, September 2024

Exploring hidden dynamics: statistical inference in periodically inhomogeneous hidden Markov models for animal behaviour
Talk at the Royal Statistical Society Conference (RSS), Brighton, UK, September 2024

Inference on the state process of periodically inhomogeneous hidden Markov models for animal behaviour
Talk at the International Statistical Ecology Conference (ISEC), Swansea, Wales, July 2024

Mitigating consequences of the Markov assumption
Poster at the 18. doctoral workshop of the Bielefeld Graduate School of Economics and Management (BiGSEM), Bielefeld University, Germany, December 2023

Mitigating consequences of the Markov assumption
Talk at the Center for Statistics, Bielefeld University, Germany, October 2023

COMMUNITY INVOLVEMENT

Reviewer
- Journal of Computational and Graphical Statistics
- Journal of the Royal Statistical Society Series C
- Movement Ecology

SKILLS

- **Programming:** R (including Rcpp), C++, Python
- **Tools:** LaTeX, git, SQL
- **Languages:** German, English

VOLUNTEERING

Member of the student council (Data Science & Statistical Science)   2021-2023
Bielefeld University, Germany

Representing the interests of student assistants (SHK-Rat)   2022
Bielefeld University, Germany