Konstantin Görgen

Karlsruhe Institute of Technology (KIT) Institute of Economics (ECON) Statistical Methods and Econometrics Bldg. 09.21 Blücherstraße 17, 3.OG 76185 Karlsruhe, Germany

Phone: +49 721 608-43793

email: konstantin.goergen@kit.edu

Current Position

o9/2018- *Graduate Research Assistant and Doctoral Candidate*, ECON - Statistical Methods and Econometrics, Karlsruhe Institute of Technology (KIT), Karlsruhe

Research Interests

My key interests lie in interpretable machine learning (ML) methods:

- Development of Novel Variable and Model Selection Techniques
- Statistical Inference for Machine Learning Methods
- Regularization Methods (Lasso/Elastic Net)
- Probabilistic Forecasting (ML-based techniques and evaluation)

Publications, Working Papers and Work in Progress

A pre-registered short-term forecasting study of COVID-19 in Germany and Poland during the second wave (with J. Bracher, D. Wolffram, M. Schienle and others), Nature Communications, 2021, Vol. 12, 5173, [DOI: 10.1038/S41467-021-25207-0]

How have German University Tuition Fees Affected Enrollment Rates: Robust Model Selection and Design-based Inference in High-Dimensions (with M. Schienle), revise and resubmit, KIT working paper, [arXiv] (updated 01/2021)

Predicting Value at Risk for Cryptocurrencies With Generalized Random Forests (with J. Meirer and M. Schienle), submitted, KIT working paper, [arXiv],[SSRN] (updated 06/2022)

Controlling False Discoveries With Robust Knockoffs: Uncovering Macroeconomic Factors of Bond Recovery Rates (with A. Nazemi and M. Schienle), submitted, KIT working paper, [arXiv] (updated 06/2022)

National and subnational short-term forecasting of COVID-19 in Germany and Poland, early 2021 (with J. Bracher, D. Wolffram, M. Schienle and others), revise and resubmit, [medRxiv] (updated 11/2021)

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Predicting Property Prices Using Augmented Crime Data: Extracting Information from Satellite Images with Convolutional Neural Networks (with J. Deuschel and M. Schienle), KIT working paper

Identifying Important Factors of Property Prices Using Satellite Images and Crime Data (with M. Schienle and K. Yu), KIT working paper

The German and Polish COVID-19 Forecast Hub. (with J. Bracher, D. Wolffram, J. Deuschel, J. Ketterer, T. Gneiting and M. Schienle), https://github.com/KITmetricslab/covid19-forecast-hub-de

On forecasting with distributional random forests (with F. Krüger and S. Lerch), work in progress

Success Factors in Football: An Analysis of the EURO 2020 (with V. Renner, M. Schienle and H. Wäsche), work in progress

Education

Summer

2018

09/2018-	DOCTORAL STUDENT, expected completion: 08/2022, ECON, Karlsruhe Institute of Technology (KIT)
01/2022- 04/2022	VISITING RESEARCHER, Department of Applied Statistics, Konkuk University, Seoul (South Korea)
10/2015- 05/2018	MSc, Industrial Engineering and Management, Karlsruhe Institute of Technology (KIT)
08/2016- 01/2017	EXCHANGE STUDENT, Industrial Engineering, INSA Lyon - Institut National des Sciences Appliquées de Lyon (France)
10/2012- 09/2015	BSc, Industrial Engineering and Management, Karlsruhe Institute of Technology (KIT)
09/2003- 06/2012	Авітик, Kepler Gymnasium Tübingen
	Conference and Workshop Presentations
07/2020 01/2020 09/2019 09/2019 06/2019 10/2018	7th HKMetrics-Workshop (online), Karlsruhe Institute of Technology (KIT), Germany Workshop on Causal Machine Learning, University of St. Gallen, Switzerland Statistische Woche 2019 (Statistical Week 2019), Trier University, Germany 6th HKMetrics-Workshop, Mannheim University, Germany 6th Annual Conference of the International Association for Applied Econometrics (IAAE), Nicosia, Cyprus 5th HKMetrics-Workshop, Heidelberg University, Germany
	Teaching
Summer 2017	Introductory Statistics I (Student Tutorial, undergraduate level)
Winter 2017/18	Computer Lab with R for Introductory Statistics II (undergraduate level)

Economics III (Student Tutorial, undergraduate Level)

Winter	Applied Econometrics (Lecture/Tutorial, graduate level)
2018/19 Summer	Seminar Advanced Topics in Econometrics (Supervision, graduate level)
Winter	Non-and Semiparametrics (Tutorial, graduate level)
2019/20 Summer 2020	Financial Econometrics I (Tutorial, graduate level)
Winter 2020/21	Financial Econometrics II (Tutorial, graduate level)
	Work Experience
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04/2017- 06/2018	Student Research Assistant, Institute of Economics (ECON), Karlsruhe Institute of Technology (KIT), Karlsruhe
04/2017- 06/2017	Student Research Assistant, FZI Research Center for Information Technology, Karlsruhe
08/2014- 07/2016	Student Research Assistant, Institute of Information Systems and Marketing (IISM), Karlsruhe Institute of Technology (KIT), Karlsruhe
08/2015- 10/2015	International Production Intern, Robert Bosch GmbH, Reutlingen
09/2013	Project Management Intern, Robert Bosch France SAS, Caen (France)
	Languages
	German (native speaker), English (fluent), French (fluent), Spanish (basics)
	Grants, honors $\mathring{\sigma}$ awards
06/2021	Karlsruhe House of Young Scientists (KHYS) Research Travel Grant for research stay in Seoul, South Korea
04/2021	Winner of the International Virtual Covid-Data Challenge, Helmholtz Information & Data Science Academy, Berlin, Germany
11/2020	Winner of the Helmholtz Datathon for Grand Challenges on Climate Change, Helmholtz Information $\mathring{\sigma}$ Data Science Academy, Berlin, Germany
08/2016	ERASMUS+ Grant for studying at INSA Lyon, France
	Karlsruhe, June 28, 2022, Konstantin Görgen

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