Marcel **KLATT** Ph.D Mathematical Science

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PROFILE

I am a doctor in mathematical science focused on statistics and stochastics. During the last five years, I have been involved in projects centered on the theory of optimal transport and its potential applications as a new tool for statistical data science. I have contributed to a new era of statistical data analysis via optimal transport-based methods with several scientific publications. Currently, I am a postdoctoral researcher at the University of Göttingen. I seek to apply my mathematical knowledge to perform data analysis that contributes to face the challenges of the ever changing planet.

PROFESSIONAL EXPERIENCE

04/2022-Today	 Postdoctoral Researcher, INSTITUTE FOR MATHEMATICAL STOCHASTICS, University of Göttingen Identification and further development of statistical research questions and scientific topics Preparation of scientific publications and presentations Participation in international conferences and workshops Supervision of student research projects and theses Review scientific papers for statistical journals (Annals of Statistics, Electronic Journal of Statistics)
03/2018-02/2022	 Research Assistent, RESEARCH TRAINING GROUP 2088, University of Göttingen Guided and independent research with the goal to develop an own research profile Participation in research seminars, international conferences and workshops Communicating achieved scientific results (articles, oral presentations, posters) Preparation of a Ph.D-thesis
04/2016-02/2018	 Research Student Assistent, INSTITUTE FOR MATHEMATICAL STOCHASTICS, University of Göttingen Gain first insight into developing own research questions Support in research related programming tasks Development and implementation of R-packages ICRAN Contributing with own presentations to the research seminar
2012-2016	 Teaching Student Assistent, MATHEMATICAL INSTITUTE, University of Göttingen Prepare and give exercise classes for the mathematical institute Prepare and correct exercise sheets/exams of undergraduate students Classes covered: Calculus I/II, Algebra, Measure and Probability Theory, Stochastics, Statistics
2009-2010	 Civil Service, MEDIAN SALZE KLINIK, Bad Salzdetfurth Health-care service in a hospital Assisting nurses and doctors

EDUCATION

03/2018-02/2022	Ph.D Candidate, INSTITUTE FOR MATHEMATICAL STOCHASTICS, University of Göttingen
	MAJOR FIELD OF STUDY: Mathematical Statistics/Stochastics
	Рн.D Tнеsis: Limit Laws for Empirical Optimal Transport 🔗 Online
	Supervisor: Prof. Dr. Axel Munk
	Overall Grade: Magna cum Laude

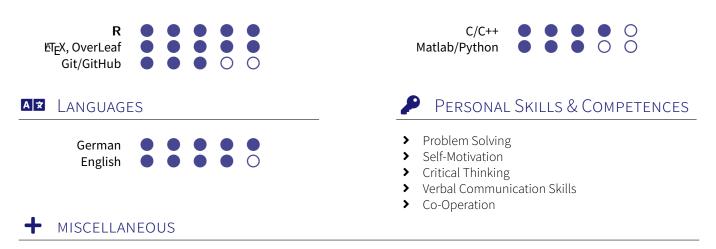
10/2015-02/2018	Master of Science MSc, MATHEMATICS, University of Göttingen STUDY FOCUS: Mathematical Stochastics (Grade of Study Focus: 1,0) MASTER THESIS: <i>Limit Distributions for Regularized Wasserstein Distances on Finite Spaces</i> OVERALL GRADE: 1,1 (very good), Master's degree is awarded with distinction
10/2013-09/2015	Bachelor of Science B.Sc, MATHEMATICS, University of Göttingen BACHELOR THESIS: <i>Gaps between the Values of Binary Quadratic Forms</i> OVERALL GRADE: 1,7 (good)
10/2010-09/2013	Bachelor of Arts B.A., MATHEMATICS & BIOLOGY, University of Göttingen BACHELOR THESIS: <i>Gaps between the Values of Binary Quadratic Forms</i> OVERALL GRADE: 1,4 (very good)

Conferences & Talks

- 2019 **CONFERENCE AND TALK, MUNICH UNIVERSITY (DE)**
 Program
 Presentation
 DAGStat: Statistics under one Umbrella.
 TALK: Empirical Regularized Optimal Transport: Statistical Theory and Applications.
- 2019 SUMMER SCHOOL, HAUSDORFF CENTER FOR MATHEMATICS BONN (DE)
 Program Summer school Optimal Transport meets Economic Theory.
- 2018 **CONFERENCE AND TALK, VALLADOLID UNIVERSITY (ES)** Program Presentation Mass Transportation Theory: Opening perspectives in Statistics, Probability and Computer Science. TALK: Distributional Limits for Optimal Transport on Finite Spaces.
- 2017 **CONFERENCE, GÖTTINGEN UNIVERSITY (DE)** Program Statistics meets Friends: From Biophysics to Inverse Problems and back.

PUBLICATIONS, PREPRINTS & SOFTWARE

- 2022 M. Klatt, A. Munk and Y. Zemel, Limit Laws for Empirical Optimal Solutions in Stochastic Linear Programs, Annals of Operations Research 🔗 Online
- 2022 S. Hundrieser, M. Klatt, T. Staudt and A. Munk, A Unifying Approach to Distributional Limits for Empirical Optimal Transport, Preprint arXiv:2202.12790 🔗 Online
- 2021 F. Heinemann, M. Klatt and A. Munk, Kantorovich-Rubinstein distance and barycenter for finitely supported measures: Foundations and Algorithms, Preprint arXiv:2112.03581 🔗 Online
- 2021 S. Hundrieser, M. Klatt and A. Munk, The Statistics of Circular Optimal Transport, Directional Statistics for Innovative Applications, Springer (2021) 🔗 Online
- 2021 S. Hundrieser, M. Klatt and A. Munk, Limit Distributions and Sensitivity Analysis for Entropic Optimal Transport on Countable Spaces, Preprint arXiv:2105.00049 (2021) 🔗 Online
- 2020 M. Klatt, C. Tameling and A. Munk, Empirical Regularized Optimal Transport: Statistical Theory and Applications, SIAM Journal on Mathematics of Data Science (2020) 🔗 Online
- 2019 R package: Barycenter: Regularized Wasserstein Distances and Barycenters. � CRAN



- > Private Coach in Mathematics for Pupils and Students
- > Private Coach in Latin American Dances
- > Driver License B