

Johannes Wieditz

Curriculum Vitae

Experience

since 2021

Biostatistician

University Medical Centre Göttingen

Department of Medical Statistics • Department of Anaesthesiology

- Statistical consulting
- Biometrical study planning (statistical design, sample size calculation, preparation of statistical analysis plans)
- Statistical analysis of studies, programming of statistical models, tests, summary tables and figures and review of these
- Presentation and publication of study results
- Writing applications for third-party funds/ fundraising

2017–2022

Research Assistant

University of Göttingen

Institute of Mathematical Stochastics

- Modelling of global features of fingerprints and derivation and verification of a model for necessity of minutiae points due to fingerprint geometry
- Investigation and identification of additional minutiae in real fingerprints
- Development of an algorithm for separation of these from the necessary minutiae in a Bayesian sense
- Verification that additional minutiae bear characteristic information for an individual
- Supervision of bachelor and master theses

2016–2017

Intern

KPMG AG Wirtschaftsprüfungsgesellschaft, Frankfurt a. M.

Department Risk Banking (Credit Risk)

- Development and implementation of a software tool to compute provisions as per IFRS 9

Education

Doctor rerum naturalium in Mathematical Sciences

University of Göttingen, 2017–2021

- Thesis title: Characteristic and necessary minutiae in fingerprints
- Supervisor: Prof. Dr. Stephan F. Huckemann, Prof. Dr. Dominic Schuhmacher
- Grade: magna cum laude

Master of Science in Mathematics and mathematical economics

Technische Universität Ilmenau, 2014–2017

- Thesis title: Berechnung von Fréchet-Mittelwerten auf Sphären
- Supervisor: Prof. Dr. Gabriele Eichfelder, Prof. Dr. Thomas Hotz
- Grade: first honors (1,0)

Bachelor of Science in Mathematics

Technische Universität Ilmenau, 2011–2014

- Thesis title: Nicht-asymptotische Konfidenzbereiche für extrinsische Erwartungswerte zirkulärer Daten
- Supervisor: Prof. Dr. Thomas Hotz
- Grade: first honors (1,1)



CONTACTS

📍 Göttingen, Germany

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🌐 johannes-wieditz.de

💻 github.com/jwieditz

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FIELDS

🗣 Statistical consulting



💻 Software development



⏯ Project management



TECHNOLOGIES

💻 R, Python, Java, C++, SAS

📄 HTML, CSS, Office, L^AT_EX

⏯ Git



SuperMPLE

- R-package for the computation of maximum pseudo-likelihood estimators for a point pattern being a sample from the superposition of a Strauss-hard core and a Poisson process.
<https://github.com/jwieditz/SuperMPLE>

Minutiae Separating Algorithm (MiSeal)

- R-package for the separation of point pattern samples of a Strauss-hard core and a Poisson process. Contains a Java-based graphical user interface to analyse a selection of geometric features of a fingerprint.
<https://github.com/jwieditz/MiSeal>

Spherical Branch and Bound

- R-package to compute all Fréchet sample means on the 2-sphere with arbitrary precision based on the branch and bound method.
<https://github.com/jwieditz/SphericalBranchAndBound>

Teaching

Teaching assistant

University Medical Centre Göttingen, 2022–24

Methodological foundations of evidence-based medicine, analysis of longitudinal and time-to-event data

Lecturer

University of Göttingen, 2021–22

Foundations of stochastics

Supervision of master thesis

University of Göttingen, 2021

Variational Autoencoder-based generation of global fingerprint features by Corvin Grigutsch**Lecturer**

IUBH Internationale Hochschule Erfurt, 2016–20

Business mathematics and statistics for the courses economics, health management, marketing management, social work and tourismn economy

Teaching assistant

University of Göttingen, 2017–19

Multivariate statistics, Monte Carlo methods

Teaching assistant

Technische Universität Ilmenau, 2013–2016

Linear algebra, measure theory, mathematics for applied media and communication sciences

Teaching assistant

University of Applied Sciences Erfurt, 2012–13

Mathematics at the Institute of Civil Engineering

Selected publications

Morphine and Hydromorphone Effects, Side Effects, and Variability: A Crossover Study in Human Volunteers 2023

Konrad Meissner, Albert Dahan, Erik Olofsen, Christine Göpfert, Jane Blood, **Johannes Wieditz**, Evan D. Kharasch
Anesthesiology, Volume 139, pp 16–34.
<https://doi.org/10.1097/ALN.0000000000004567>

Characteristic and Necessary Minutiae in Fingerprints 2022

Johannes Wieditz, Yvo Pokern, Dominic Schuhmacher, Stephan Huckemann
Journal of the Royal Statistical Society: Series C (Applied Statistics), Volume 71, Issue 1, pp 27–50.
<https://rss.onlinelibrary.wiley.com/doi/10.1111/rssc.12520>

An algorithm for computing Fréchet means on the sphere 2019

Gabriele Eichfelder, Thomas Hotz, **Johannes Wieditz**
Optimization Letters, Volume 13, Issue 7, pp 1523–1533.
<https://link.springer.com/article/10.1007/s11590-019-01415-y>

Non-Asymptotic Confidence Sets for Circular Means 2016

Thomas Hotz, Florian Kelma, **Johannes Wieditz**
Entropy 2016, 18, 375.
<https://www.mdpi.com/1099-4300/18/10/375/pdf>

LANGUAGES

German (native)

English (fluent)

French (conversational)

Russian (conversational)

