

# Martje Rave

PHD CANDIDATE · STATISTICS

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## Education

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### Ludwig-Maximilians-Universität

PHD STATISTICS

- Advisor: Prof. Dr. Göran Kauermann

München

September 2020 - present

### Univeristy of Glasgow

MSCI STATISTICS (INTEGRATED MASTERS DEGREE)

- Advisor: Prof. Dr. Duncan Lee
- Trained in Frequentist and Bayesian Statistics with application in R, SAS and SQL using foundations in calculus, algebra and graph theory
- **Project:** Is "Border Sharing" the best spatial correlation structure for modelling areal unit health data?
- Graduated with First Class

Glasgow

2015 - 2020

### Univeristy of Southern Denmark

BSC ECONOMICS AND BUSINESS ADMINISTRATION

- **Project:** Structural flaws in the Maastricht Treaty and how it led to the economical divergence in the European Monetary Union.
- Grade: 8.1 (Danish 7-grade-scale)

Sonderborg

2012 - 2015

## Industry

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- 2018-2020 **Data Analyst**, Royal Bank of Scotland
- 2017-2020 **Teaching Assistant**, Statistics, University of Glasgow
- 2017 **Research Assistant**, University of Glasgow

## Publications

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### PUBLISHED

**Fritz, C;** De Nicola, G; Rave, M; Weigert, M; Khazaei, Y; Berger, U; Küchenhoff, H and Kauermann, G. 2022. Statistical modelling of COVID-19 data: Putting generalized additive models to work. Statistical Modelling, Volume 0: Ahead of Print. <https://doi.org/10.1177/1471082X221124628>

Contribution: Responsible for the analysis of the ICU occupancy, as well as the reporting thereof in the article.

**Rave, M;** Kauermann G. The Skellam distribution revisited: Estimating the unobserved incoming and outgoing ICU COVID-19 patients on a regional level in Germany. Statistical Modelling. 2024. doi:10.1177/1471082X241235024

Contribution: First author in close collaboration with Prof. Dr. Göran Kauermann.

### IN REVIEW

**Rave, M;** Kauermann, G: Deriving Duration Time from Occupancy Data – A case study in the length of stay in Intensive Care Units for COVID-19 patients

Contribution: First author in close collaboration with Prof. Dr. Göran Kauermann.

## Awards, Fellowships, & Grants

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- 2025 **Best Poster Award**, Deutsche Arbeitsgesellschaft fuer Statistik (DagStat)
- 2023-2025 **LMU Mentoring**, LMU

## Teaching

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<b>Generalisierte Regressionsmodelle, Work shop instructor.....</b>	Autumn 2020 Autumn 2021 Autumn 2022 Autumn 2024
<b>Lineare Regressionsmodelle, Work shop instructor.....</b>	Spring 2021 Spring 2022 Spring 2023 Spring 2024
<b>Statistical Modelling, Work shop instructor.....</b>	2021 2022 2023
<b>Spatial Statistics, Work shop instructor.....</b>	Autumn 2023 Autumn 2024
<b>Advanced Bayesian Modelling, Work shop instructor.....</b>	Autumn 2024
<b>Einführung in die Bayesianische Modellierung, Work shop instructor, Instructor .....</b>	Spring 2024 Spring 2025
<b>Wahrscheinlichkeitstheoretische Grundlagen, Work shop instructor.....</b>	Spring 2024
<b>Spatial Inference, Work shop instructor.....</b>	Autumn 2021
<b>Statistik I für Studierende der Soziologie, des Nebenfachs Statistik, Work shop instructor..</b>	Autumn 2020
<b>Seminar: Open Science in Statistics and Machine Learning, Instructor.....</b>	Autumn 2022
<b>Seminar: Introduction to statistical analysis of areal data, Instructor.....</b>	Spring 2023
<b>Seminar: Statistical analysis of areal data, spatial point processes, Instructor.....</b>	Autumn 2023
<b>Statistics 1, Tutor.....</b>	2018 2020

## SERVICE AND OUTREACH

2021	<b>Institute Tea-talks, Organisation</b>	LMU Statistical Institute LMU
2022-2023	<b>Open Science in Statistics, Committee Member</b>	Statistical Institute

## DEVELOPMENT AND CONFERENCES

**Lehrkompetenzen GraduateCenter**, This was part of an internal LMU educational programme opportunity, which taught me pedagogical approaches to teaching at a university level, such that the learning experience of the students is maximized.

**5th Oxford | Berlin Summer School on Open and Responsible Research in the Life Sciences 2022**, I acquired an insight into open science in life sciences, specifically medical research, and was given the opportunity to discuss common

statistical pitfalls and shortcomings of research in these fields.

**70th Biometric Colloquium- Lübeck, March 2024**, I was able to present my work on the Skellam distribution through a presentation.

**International Workshop on Statistical Modelling - Durham, July 2024**, I was able to present my work in progress on the length of stay in form of a poster.

<sup>7<sup>th</sup></sup> **Joint Statistical Meeting of the Deutsche Arbeitsgemeinschaft Statistik- Berlin, March 2025**, I was able to present my work on the length of stay in form of a poster.

#### PROFESSIONAL MEMBERSHIPS

Royal Statistical Society

Institute of Mathematical Statistics