



## 2<sup>nd</sup> Händel Seminar May 21-22, 2025

### Time-to-event Analysis in Epidemiology

How do specific risk factors affect survival of patients? How can we identify and characterize relevant risk factors using event time analysis? The seminar will provide an introduction to event time analysis with focus on illustrative applications.

In many sub-disciplines of medicine and epidemiology, event times are observed over time. For example, risk factors can be analyzed in large cohort studies. The seminar will go beyond standard methods such as Kaplan-Meier-plots and Cox regression and cover for example parametric and semiparametric models, AFT models, stratified Cox models, methods for interval-censored data and recurrent events, time-dependent covariates, frailty models etc.

The seminar with several lectures will enable epidemiologists and other interested researchers to perform event time analysis. Epidemiological interpretations of the results in highly relevant current research foci will also be addressed.

### Program

Wednesday, May 21, 2025

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10:00 Registration and coffee

10:15 Andreas Wienke, Rafael Mikolajczyk (Halle): Welcome

10:30 Alexandra Strobel (Halle): The difference between built-in selection and confounding bias and how to identify them in survival data

11:15 Oliver Kuß (Düsseldorf): Statistical modelling with simple mean residual life times

12:00 Lunch break

13:30 Sandra Schmeller (Ulm): From a time to first event to recurrent event analysis

14:15 Jan Beyersmann (Ulm): Multi-state models

15:00 Coffee break

15:30 Antoniya Dineva (Bielefeld): A double copula model for semi-competing risks data

16:15 Annika Hoyer (Bielefeld): Statistical MODELing of additive time effects in survival analysis

17:00 Break

19:00 Dinner (self-payer)

Thursday, May 22, 2025

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9:00 Antje Jahn (Darmstadt): Weighted binary classifiers - a flexible strategy for dealing with censoring in machine learning

9:45 Lukas Klein (Darmstadt): Weighted binary classifiers - an application to the German organ transplantation registry

10:30 Coffee break

11:00 Vera Arntzen (Leiden): From 'quick and dirty' to 'quick and statistically sound' / on incubation and latency time estimation with coarse infectious disease data

11:45 Jan Porthun (Halle): Comparison of multivariable methods for determining cut-points in the context of survival time analyses – A simulation study

12:30 Closing

### Händel Seminars in Epidemiology

The seminar series continue the tradition of the Händel School of Modern Epidemiology initiated by Prof. Stang in Halle (Saale). We address research questions of modern epidemiology from a methodological perspective.

Our target audiences are doctoral students and junior postdocs, but also experienced researchers will find specific topics of interest. We embrace interdisciplinary cooperation and hope to provide input for a broad spectrum of research areas.

Costs: Seminar fee is 150€(reduced fee of 75€is applicable to PhD students and members of the MLU), fee includes coffee breaks, lunch on Wednesday and snack on Thursday.

**apl. Prof. Dr. Andreas Wienke**

**Prof. Dr. Rafael Mikolajczyk**

### **Venue:**

**Institute of Medical Epidemiology, Biometry and Informatics**

**Martin Luther University Halle-Wittenberg**

**Magdeburger Str. 8, 06112 Halle (Saale)**

### **responsible for questions regarding the program:**

**Andreas Wienke ([andreas.wienke@uk-halle.de](mailto:andreas.wienke@uk-halle.de), 0345 557 3566)**

Registration (the number of places is limited, so please register early):

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