

MONDAY

Half-day course

Full-day course

Full-day course

9:00-10:30

Bayesian borrowing in clinical trials: design choices, assessment of operating characteristics and reporting
Annette Kopp-Schneider, Silvia Calderazzo

An introduction to Bayesian non-parametrics for causal inference

Michael Daniels, Jason Roy

A practical introduction to simulating complex trial designs

Thomas Jaki, Dominique-Laurent Couturier

10:30-11:00

Coffee break

Coffee break

Coffee break

11:00-12:30

Bayesian borrowing in clinical trials: design choices, assessment of operating characteristics and reporting
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Thomas Jaki, Dominique-Laurent Couturier

12:30-14:00

LUNCH

LUNCH

LUNCH

14:00-15:30

An introduction to Bayesian non-parametrics for causal inference

Michael Daniels, Jason Roy

A practical introduction to simulating complex trial designs

Thomas Jaki, Dominique-Laurent Couturier

15:30-16:00

Coffee break

Coffee break

16:00-17:30

An introduction to Bayesian non-parametrics for causal inference

Michael Daniels, Jason Roy

A practical introduction to simulating complex trial designs

Thomas Jaki, Dominique-Laurent Couturier

TUESDAY 8:30-9:00	Opening ceremony											
Early morning plenary: 9:00-10:00	Keynote	Chair: Anne-Laure Boulesteix										
	Simulation studies: bringing method to the madness	Tim Morris										
Coffe break: 10:00-10:45	Poster session											
Late morning parallel: 10:45-12:15	IS1: Past and Future of Bayesian Biostatistics	Chair: Reinhard Vonthein	TC1: 50th anniversary of the closed testing procedure	Chair: Bjorn Bornkamp	Censored data 1	Chair: Caroline Dietrich	High dimensional data 1	Chair: Bart Mertens	Statistical hypothesis testing 1	Chair: Michael Lauseker-Hao	Other 2	Chair: Els Goetghebeur
	Bayesian Highs and Lows: A Pharma Industry Perspective	Simon Wandel	The invention of the closed testing procedure and early developments	Markus Neuhäuser	Overview of methods for planning studies with multiple time to event endpoints	Ann-kathrin Ozga	Unraveling Aging in the CSF Proteome: A Systematic Comparison of Variable-Selection Methods for Protein Risk Score Modeling	Sathish Kabatkar Ravindranth	Bootstrap calibration: A flexible tool to obtain (simultaneous) confidence and tolerance intervals	Max Menssen	Nonparametric analysis of covariance in Mann-Whitney effects	Konstantin Emil Thiel
	Bayesian approaches in time of ML and AI	Katja Ickstadt	Closed Testing, Interim Analysis and Adaptations – History, Methods, and Modern Challenges	Franz König	The impact of the number and the size of clusters on prediction performance of the stratified and the conditional shared gamma frailty Cox proportional hazards models	Daniele Giardiello	Detecting gene-environment interactions to guide personalized intervention: boosting distributional regression for polygenic scores	Qiong Wu	Multiple-use prediction and calibration for all future values: exact simultaneous tolerance bands for regression	Yang Han	Enabling Inference in Small Samples: Bayesian Estimation of Nonparametric Effects	Levin Wiebelt
	Lessons learned in the last 25 years	Gerhard Nehmiz	Principles in Harmony: Closed Testing Meets the Partitioning and Projection Principle	Werner Brannath	Evaluating Statistical Methods for Multiple Time-to-Event Endpoints: A Simulation Study on Recurrent and Competing Events	Duoerkongjiang Alidan	A Nested Cross-Validation Framework for Leakage-Free Calibration of Adaptive Elastic-Net Regression in High-Dimensional Data	Gul Inan	Minimum area confidence set optimality for simultaneous confidence bands for percentiles with applications to drug shelf-life estimation	Lingjiao Wang	A New Approach to the Nonparametric Behrens-Fisher Problem with Compatible Confidence Intervals	Stephen Schüürhuis
	Discussant	Reinhard Vonthein	Graphical Approaches for Transparent Closed Testing	Martin Posch	Prognostic Models for Recurrent Event Data	Victoria Watson	Regularized Multi-Omics Regression Modelling for Transcriptomic-Proteomic Integration in Mice with induced liver Damage.	Ngoune Domo Brunel Darwin	Detecting day-to-day effects in concentration-response experiments in toxicology	Julia Eichhorn	Graph-theoretic determinants of causal discovery performance in feedback-driven biological networks	Markus Schepers
			Multiple hypotheses testing in clinical trials beyond familywise error rate control	Frank Bretz	Unsure about the Markov assumption? A comparison of transition probability estimators in multi-state models	Merle Munko	StabCell: A stability-selection framework with error control for clustering and differential expression analysis of scRNA-seq data	Niklas Lück	Choice of the hypothesis matrix for usual quadratic forms	Paavo Sattler	The Chicken or The Egg? Causal Inference Methods for Cross-Lagged Effects in Longitudinal Panel Data	Tanya Toluay
LUNCH: 12:15-13:45												
Early afternoon parallel: 13:45-15:15	IS2: Multiple tests beyond parametric assumptions	Chair: Paavo Sattler	TC2: Interpretable Bayesian modelling of high-dimensional / complex problems in molecular biomedicine	Chair: Manuela Zucknick	Censored data 2	Chair: Sarah Friedrich-Welz	Machine learning and data science 1	Chair: Mar Rodriguez-Girondo	Statistical hypothesis testing 2	Chair: Frank Bretz	Statistical modelling 1	Chair: Iuliana Ionita-Laza
	Multiple Comparison Procedures for Simultaneous Inference in General Factorial Design for	Łukasz Smaga	Probabilistic Variable Importance: A Bayesian Perspective on Interpretable Machine Learning	Christian Staerk	mRNA COVID-19 vaccination in pregnancy and risk of pregnancy loss: a progressive	Lukas Lohse	Identifying Post-COVID Risk Factors with Model-Agnostic Feature Importance	Lukas Burk	Test of independence in a three-level model	Anna Szczepańska-Alvarez	The effect of attentional control on postural stability in young and older adults	Jakub Malik

WEDNESDAY												
Early morning plenary: 9:00-10:00	Keynote	Chair: Łukasz Smaga										
	Optimal design and Analysis in cytotoxicity experiments — Bridging the gap between statistics and toxicology	Kirsten Schorning										
Coffe break: 10:00-10:45	Poster session											
Late morning parallel: 10:45-12:15	IS4: Questions of Experimental Design and Statistical Analysis in Preclinical Research	Chair: Florian Frommlet	YSS1 (ROEs)	Chair: Andrea Berghold	Censored data 3	Chair: Jan Beyersmann	High dimensional data 2	Chair: Jaroslaw Harezlak	Methods in epidemiology 1	Chair: Werner Vach	Statistical modelling 2	Chair: Kirsten Schorning
	From design to decision: A case study in preclinical pooled CRISPR demonstrating statistical opportunity	Natasha Karp	Navigating Multiplicity in Multiverse Analyses: A Simulation Study and Case Application to Lung Cancer Staging Using SEER Data	Gloria Brigiari	Inference in pseudo-observation-based regression using (biased) covariance estimation and naive bootstrapping	Simon Mack	Individuality and information content of infrared molecular profiles: insights from a large longitudinal health-profiling study	Kosmas Kepesidis	Inferring the causal effect direction in genetic association studies: An application to broad depression, obesity, and asthma	Sharon Lutz	Comparison of statistical methods for dealing with deviations in concentration-response curves	Huiying Zhou
	Optimizing Preclinical Research: Sample Size Planning and Sequential Designs	Frank Konietschke	Modeling Antibody Kinetics in Pregnant and Lactating Women Following COVID-19 and Tdap Vaccination	Lukas Frank Buchhäusl	Evaluating selective-inference methods for Lasso in survival analysis: a comparative simulation study	Lena Schemet	Statistical basis for precision screening with infrared molecular fingerprints: functional data decomposition and lung cancer signals	Lea Gigou	Methodological and Practical Challenges in Developing a Cardiac Allocation Score	Leonie Lenz-Seraphin	A comparison of variable selection approaches for spline regression	Franziska Kappenberg
	Statistical Planning and Reporting for Multi-Laboratory Preclinical Trials	María Arroyo Araujo	Edgington's Method for Random-Effects Meta-Analysis	David Kronthaler	Evaluation of Joint Models and Related Approaches for Long-Term Risk Prediction from Short-Term Data	Moritz Madern	Integrative Prediction Models for Multi-Omics Data with Missing Modalities	Marina Bleskina	Timeliness of Polio Vaccination during 2019-21 in India: A finite mixture modeling analysis	Sumit Kumar Das	A Clustered-Metric Simulation Study Comparing Flexible Regression Techniques for Non-Linear Associations	Theresa Ullmann
	The Experimental Unit Information Index: Balancing Evidentiary Value and Sample Size of Adaptive Designs	Leonhard Held	Evaluation of cancer screening programmes: integration of the biological tumour growth model into the MOCCI method Comparative Analysis of Classification Models for Pharmaceutical Permeability Prediction	Ema Požek	Comparing variable selection in Cox and accelerated failure time models: noncollapsibility, the phantom hazard	Lorena Hafermann	Inference for Functional Matched Pairs Designs with Missingness	Marléne Baumeister	Advancing mixed-effects random forests to predict BMI development in children and adolescents based on multi-cohort data	Jiumeng Zhang	Detection of changes in time series of preclinical measurements for selecting Virtual Control Groups	Wiebke Dammann
		Jana Habus-Korbar						Subhadra Dasgupta		Estimating prevalence of micronutrient deficiency across multiple biomarkers: Approaches for generalized linear and linear mixed models		Steffen Hadasch
LUNCH: 12:15-13:45												
Early afternoon parallel: 13:45-15:15	IS5: Navigating in murky waters: reproducing preclinical findings	Chair: Frank Konietschke	YSS2 (PL & D)	Chair: Maren Hackenberg	Clinical trials 2	Chair: Sonja Zehetmayer	Machine learning and data science 3	Chair: Christian Staerk	Methods in epidemiology 2	Chair: Sharon-lise Normand	Other 3	Chair: Christiana Drake
	Reproducibility and Ethics in Nonclinical Statistics: Building Trust	Helena Geys	Hypothesis Testing in Ill-Conditioned Functional Response Models	Natalia Stefańska	A systematic empirical comparison of different statistical approaches for a multi- aspect analysis of	Martin Geroldinger	A Comprehensive Comparison of Methods for Quantifying Similarity of Datasets	Marieke Stolte	Detection of Measurement Errors and Heterogeneity During the Collection of Observational Data: A Simulation Study	Ronja Foraita	Feasibility of Photoplethysmography for Heart Rate Asymmetry Assessment: A Comparative	Rafał Pawłowski

	The Impact of Methodological Rigor on Reproducibility in Biomedical Research	Ulf Toelch	missKnockoffs: A Robust Approach to Variable Selection in Incomplete Omics Data under False Discovery Control	Dominik Nowakowski	clinical trial data in rare diseases Assessing covariate-adjusted risk differences in small-sample trials: A comparative evaluation of statistical methods	Martin Schnuerch	A New Approach to Distinctness Testing	Laura Sleboda	Detecting Temporal Measurement Heterogeneity in Cohort Studies: Lessons from the Study of Health in Pomerania	Carsten Schmidt	Study using the Autonomic Aging Database Assessing the Reliability of Virtual Control Groups in Preclinical Toxicology	Timur Tug
	Planning animal experiments based on estimation error considerations	Dario Zocholl	Conditional distribution function-based measure for independence testing of functional data.	Filip Pieczętkiewicz			Predicting mixture of experts performance by generalized estimating equations	Małgorzata Ćwiklińska-Jurkowska	Navigating Complexities in Assessing Systemic Health Effects of Tattoos in a Population-Based Cohort	Narges Ghoreishi	Modeling data with values above the upper limit of quantitation	Hannesfriedrich Ulbrich
	Sample Size Minimisation in Preclinical Animal Trials	Nicole Ellenbach	Combining machine learning methods for subgroup identification in time-to-event data with approximate Bayesian computation for bias correction	Henrik Stahl	When randomization is not random: Allocation bias in small sample, group sequential randomized clinical trials	Daniel Bodden	Predicting Ordinal Outcome Using Interpretable Artificial Representative Tree with Conformal Uncertainty Quantification	Lea Louisa Kronziel	Beyond Case Counts: Simulation Evidence for Probability-Based Pandemic Surveillance	Inken Siems	Consideration of missing values in sample size calculation using multiple imputation	Teresa Byczkowski
			Estimating the Causal Effect of a Cumulative Exposure on an Outcome in Studies Prone to Confounding and Irregular Visits	Mathilde Dicaire-Cartier	Multiple Treatment Arms, Multiple Biases? Allocation and chronological biases in platform trials	Nico Bruder	modgo 2.0: an R package for synthetic data generation to mimic original study data	Andreas Ziegler			Calibrating machine learning approaches for probability estimation in case of the absence of calibration data	Eleonora Di Carluccio
			Variable Selection in Meta-Regression with Suspected Interaction Effects	Paula Lorenz								

Late afternoon parallel

16:00-19:00 Annual German Region Meeting

16:00-19:00 Excursions

19:00-22:00 Gala dinner

IS: invited session

TC: topic-contributed session

YSS: Young-statisticians session

THURSDAY												
Early morning plenary: 9:00-10:00	Keynote		Chair: Dominik Heinzmann									
	Causal inference in practice – One (?) estimand, many (!) analytical decisions	Susanne Strohmaier										
Coffe break: 10:00-10:45	Poster session											
Late morning parallel: 10:45-12:15	IS6: Big Data in Biomedicine: Innovations Across Imaging and Omics	Chair: Malgorzata Bogdan	TC4: Biometrics in the era of AI	Chair: Anne-Laure Boulesteix	Clinical trials 3	Chair: Florian Frommlet	Ecological and agricultural statistics 1	Chair: Hans-peter Piepho	Evidence synthesis 1	Chair: Willi Sauerbrei	Methods for diagnostics studies 1	Chair: Werner Vach
	Functional Data Analysis of Head Impact Exposure of College Football Athletes	Jaroslaw Harezlak	On the Role of Biometry in AI Projects	Björn-hergen Laabs	A randomized basket trial design for dose optimization based on Bayesian model averaging using spike-and-slab priors	Belay Birlie Yimer	Clustering of indicator species according to soil properties in the regeneration phase of pedunculate oak (Quercus robur L.) forests	Anamarija Jazbec	Parametric nonlinear dose-response meta regression	Christian Ritz	Strategies for dealing with outliers in (semi-)parametric estimation of reference intervals and standard deviation scores	Andreas Gleiss
	Quantile regression in genomics: a new lens for genetic discovery and phenotype prediction	Iuliana Ionita-Laza	ChatGPT as a Tool for Biostatisticians	Dennis Dobler	A Basket Trial Design for Unequal Sample Sizes Based on Power Priors	Lukas Baumann	Quality over Quantity? - The optimised allocation of quality samples in Bavarian post-registration trials in perennial ryegrass	Anne-katrin Gorn	Meta-analyses based on previous meta-analyses	Christian Röver	A Novel Approach to Diagnostic Evaluation: Prevalence-Corrected Precision-Recall Curves	Ilker Unal
	Degradation Graphs Reveal Hidden Proteolytic Activity in Peptidomes	Jonas Wallin	Teaching Biostatistics in Times of AI	Ursula Berger	How to optimize dynamic borrowing in basket trials – A utility-based framework.	Lukas D Sauer	Challenges and Perspectives on Using Environmental Covariates in Multi Environment Trials A Case Study in Sugar Beet	Maksym Hrachov	Proper Back-Transformations for the Random-Effects Model in Meta-Analysis	Jan-bernd Igelmann	Covariate adjustment, factorial designs and clustered data in diagnostic accuracy studies	Philipp Weber
	Relative quantification of proteins with shared peptides: a weight-based approach	Mateusz Staniak	Panel discussion	Presenters, Sarah Friedrich-Welz, Frank Bretz	“AI-Assisted Methodology Validation Before Data Collection: The E-PICOS Framework for Robust Clinical Trials”	Arzu Kanik	Optimizing the allocation of trials to sub-regions in crop variety testing: different conditions in different years	Maryna Prus	Bayesian conjugate analysis for federated statistical inference	Peter Degen	Enhancing Efficiency in Cancer Drug Testing using Nonparametric Approaches	Sunil Mathur
					Using Confidence Distributions in Final and Interim Analyses for Single-Arm Studies or Platform Trials Consisting of Single-Arm Studies	Günter Heimann	Assessment of a Low-Cost System for 3D Image Acquisition in Beef Cattle	Milene Figueira	Evaluating Nonparametric Combination Methods for Aggregating N-of-1 Trials: A Simulation-Based Comparison with Meta-Analysis	Anna Eleonora Carrozzo	Comparison of different methods for the meta-analysis of diagnostic test accuracy studies – a simulation study	Ferdinand Valentin Stoye
LUNCH: 12:15-13:45												
Early afternoon parallel: 13:45-15:15	IS7: Methods to improve the practical usefulness of biomedical research	Chair: Leonhard Held	TC5: Statistical issues in health care provider comparisons	Chair: Johannes Rauh	Clinical trials 4	Chair: Annette Kopp-Schneider	High dimensional data 3	Chair: Sarah Friedrich-Welz	Other 1	Chair: Chris Jennison	Missing data 1	Chair: Łukasz Smaga
	Systematic Review and Meta-analysis of Animal Studies as Tools for Strengthening Research Integrity	Kimberley Wever	Causal Inference for Healthcare Profiling in Low-Event Settings	Sharon-lise Normand	Difference-in-difference estimators in randomized trials with external controls	Christiana Drake	Integrating functional motif discovery and statistical learning approaches for advanced blood glucose prediction in real-world conditions	Sara Garber	Statistical methods to reduce Selection Bias in Dose-Finding Studies with Binary Endpoints	Alexandra Balzer	Prediction in the presence of missing values. Are there credible alternatives to imputation-based use of the predictive density?	Bart Mertens

	Quality assessment of proposals for animal studies and corresponding publications	Florian Frommlet	Measuring performance for end-of-life care	Sebastien Haneuse	Evidence Generation Using External Controls: Opportunities and Challenges – A Regulator’s Perspective	Armin Schüler	Statistical end-to-end analysis of large-scale microbial growth data with DGrowthR	Medina Feldl	Comparison of ANOVA methods for experiments in the nested block design	Konrad Banaś	Impact of imputation on individual cough alert system with incomplete baseline monitoring	Dörte Huscher
	From the Classroom to the Clinic: Teaching Reproducibility in Statistics Education	Samuel Pawel	Timely yearly assessment of follow-up outcomes using a period-based survival data approach	Lisa Steyer	Bayesian Methods Integrating Causal Inference Approaches for Borrowing Historical Control Data in RCTs: A Neutral Comparison Study	David Jesse	Population Matching to Enhance Back-Translation Between Clinical Trials and Biobank Data for Drug Target Discovery	Han Chang Chiam	Rectangular augmented row-column designs generated from contractions	Hans-peter Piepho	The performance paradox: understanding the discrepancy between the performance of imputation approaches for survival models with missing covariates in simulation studies and real data	Edouard F. Bonneville
	Discussant	Ulrich Dirnagl	Improved predictions of quality of care indicators in the tail of its distribution	Els Goetghebeur	Identification of subtrial-specific optimal biological dose (OBD) with robust borrowing of information	Zhi Cao	Entropy Adjusted Graphical Lasso for Sparse Precision Matrix Estimation	Vahe Avagyan	Effect of using textbook field plans without randomization	Jens Hartung	Handling Missing Data in Life Science: A Comparative Study of Imputation Methods for Medical Data.	Maria Thurow
			Comparing the usefulness of patient and clinician reported outcomes measures to compare providers of arthroscopic rotator cuff repair – Methodological considerations	Werner Vach					Socio-spatial characterization of sub-sewersheds for wastewater-based epidemiology: Developing and evaluating two estimators for population-related variables	Yassine Talleb	Evaluating the Impact of Missing Data Imputation Methods on Bias and Covariate Balance in Propensity Score Analysis: A Simulation Study	Saghar Garayemi
Coffe break: 15:15-15:45												
Late afternoon parallel: 15:45-17:15	IS8: Regularization methods and their applications in the work of IQWiG and IQTIG	Chair: Ralf Bender			Clinical trials 5	Chair: Tomasz Burzykowski	Machine learning and data science 4	Chair: Andreas Ziegler	Open and reproducible research 1	Chair: Susanne Strohmaier		
	Regularization methods in clinical biostatistics: State-of-the-art and possibilities for improvement	Sarah Friedrich-Welz			Assessment of Global Evidence Against Homogeneity for Exhaustive Subgroup Treatment Effect Plots	Björn Bornkamp	Generative Adversarial Networks For Mortality Modelling	Łukasz Głąb	Addressing the researchers' degree of freedom using multiple marginal models	Anne-laure Boulesteix		
	The Firth correction - a recap	Georg Heinze			Comparing adverse event probabilities in a hypothetical world without consent withdrawals or treatment switches	Judith Vilsmeier	Lesion Network Mapping based Convolutional Neural Networks: Predictive Performance and Interpretability	Matthias Becher	OMOP ETL Pipeline Implementation for Tuberculosis Data Standardisation at Douala General Hospital, Cameroon	Brenda Yankam Mbouamba		
	Regularization methods in the evaluation of hospital quality	Jona Cederbaum					Deep Learning Strategies for Rare and Common Brain Disease Diagnostics from Medical Imaging	Anna Mamchych	Living Synthetic Benchmarks: A Neutral and Cumulative Framework for Simulation Studies	František Bartoš		
	Regularization methods in clinical biostatistics: Evaluation of adverse events in early benefit assessment using Firth correction for Cox models in the case of zero events	Lars Beckmann			Continuous Monitoring in Early Phase Oncology: A Standardized, Patient-Centric Approach	Kuzko Aleksandra	From Data to Decisions: Enhancing the Reliability of Random Forest Predictions with optRF	Thomas Martin Lange	How many subgroup analyses are false (-positives or negatives)? – Evidence from p-value distributions of interaction tests and mixture models in diabetes research	Oliver Kuss		
					Blinded continuous monitoring for continuous outcomes	Longhao Xu			Improving clinical and methodological research in the health sciences – on the crucial role of reporting guidelines and structured reporting	Willi Sauerbrei		
17:30-18:00 Closing ceremony												
IS: invited session; TC: topic-contributed session												