

# 2026 IMS Annual Meeting Schedule

## Monday

9:00-10:00 | Europa-Hall

**Session:** IMS Wald Award and Lecture, **Organizer:** IMS Committee on Special Lectures, **Chair:** Kavita Ramanan

- **Tilman Gneiting** Assessing Monotone Dependence: Area Under the Curve Meets Rank Correlation

10:00-10:30 | Coffee Break

10:30-12:00 | Mozart-Hall 4-5

**Session:** Statistical learning for spatial-temporal data, **Organizer:** Lujia Bai, **Chair:** Holger Dette

- **Wei Wu** Gaussian Approximation and Concentration of Constant Learning-Rate Stochastic Gradient Descent
- **Soumendra Lahiri** A Central Limit Theorem for sums of spatial block variables and some applications
- **Daisuke Kurisu** M-Estimation for Non-stationary Spatial Data

10:30-12:00 | Europa-Hall

**Session:** Statistical Foundations of Diffusion Models, **Organizer/Chair:** Yuting Wei

- **Xihong Lin** Harnessing Synthetic Data from Generative AI for Statistical Inference
- **Annie Qu** Syntax-guided diffusion language models with user-integrated personalization
- **Richard Samworth** Learn the score

10:30-12:00 | Mozart-Hall 2

**Session:** Random graph models, **Organize/Chair:** Mia Deijfen

- **Nina Gantert** Some result about opinion dynamics
- **Bas Lodewijks** Preferential attachment trees with vertex death: The super-linear regime
- **Céline Kerriou** Temporal connectivity of random geometric graphs

10:30-12:00 | Mozart-Hall 1

**Session:** Causality Meets AI: Generative Structure, LLM-Assisted Trials, and Spatial Heterogeneity, **Organizer:** Mladen Kolar, **Chair:** Paromita Dubey

- **Bryon Aragam** Statistical foundations of representation learning in generative models
- **Waverly Wei** Can large language models boost the power of randomized experiments without statistical bias?
- **Yan Gong** Causal Spatial Quantile Regression

10:30-12:00 | Karajan-Hall 2

**Session:** Random Matrices, **Organizer/Chair:** Laszlo Erdos

- **Mohammed Osman** On the convex hull and coverage threshold of Ginibre eigenvalues
- **Reuben Drogin** Localization in Quantum and Classical Systems
- **Zhigang Bao** Numerical Radius of Non-Hermitian Random Matrices

10:30-12:00 | Wolf Dietrich-Hall 1

**Session:** Measures of Statistical Association, **Organizer/Chair:** Sebastian Fuchs

- **Jonathan Ansari** An ordering for the strength of functional dependence
- **Siegfried Hörmann** Measuring dependence between a categorical response and a functional covariate
- **Fang Han** Conditional independence testing via Azadkia-Chatterjee's graph correlation

10:30-12:00 | Wolf Dietrich-Hall 2

**Session:** Recent Advances in Distribution Theory, **Organizer/Chair:** Tomasz Kozubowski

- **Krzysztof Podgorski** A class of continuous-time Gaussian mean-variance mixture state-space models simultaneously accounting for asymmetry, tailedness, and peakedness
- **Anna Panorska** From Atmospheric Rivers to Flood Risk: A Multivariate Model for Extreme Precipitation
- **Agnieszka Wylomanska** A modified Greenwood statistic for goodness-of-fit testing in heavy-tailed multivariate samples

10:30-12:00 | Mozart-Hall 3

**Session:** Advances in Matrix Methods, **Organizer/Chair:** Fan Wang

- **Elena Tuzhilina** Smooth Zero-Inflated Modeling on Counting Tensors
- **Zhongyuan Lyu** HeteroJIVE: Weighted Spectral Estimation for Shared Subspace Recovery under Multi-View Heteroskedasticity
- **Binyan Jiang** Dynamic Networks with Node Heterogeneity and Homophily

12:00-14:00 | Lunch Break

12:00-14:00 | Sheraton Grand – Wintergarten 2 - IMS Executive Committee Meeting – Closed meeting

14:00-15:30 | Karajan-Hall 1

**Session:** Inference, Learning, and Decision-Making in Complex Systems, **Organizer/Chair:** Alessandro Arlotto

- **Alexandre Belloni** Online Pandora's Box for Contextual LLM Cascading
- **Itai Gurvich** Goggin's Corrected Kalman Filter: Guarantees and Filtering Regimes
- **Pascal Moyal** Stochastic control and reinforcement learning for greedy dynamic matching models

14:00-15:30 | Mozart-Hall 2

**Session:** Three perspectives on singular stochastic PDEs, **Organizer/Chair:** Oleg Butkovsky

- **Máté Gerencsér** Variance renormalisation of parabolic stochastic PDEs
- **Ilya Chevyrev** Large field problem in coercive SPDE via scaling
- **Ruoyuan Liu** Global dynamics and weak universality for the fractional hyperbolic  $\Phi^4_3$ -model

14:00-15:30 | Wolf Dietrich-Hall 2

**Session:** Random walks and interacting particles on random graphs, **Organizer/Chair:** Nina Gantert

- **Brett Kolesnik** Recent progress on graph bootstrap percolation
- **Sara Terveer** Return probabilities on Bienaymé-Galton-Watson trees
- **Andreas Klippel** Long-Range Order in the Monomer Double-Dimer Model with Long-Range Interactions

14:00-15:30 | Europa-Hall

**Session:** Statistical theory and algorithms for AI, **Organizer/Chair:** Peter Hoff

- **Florentina Bunea** BabyTransformer CODL learns latent domains
- **Rebecca Willett** How do simple rotations affect the implicit bias of Adam?
- **Arnak Dalalyan** Assessing the Quality of Denoising Diffusion Models in Wasserstein Distance

14:00-15:30 | Karajan-Hall 2

**Session:** Inference Without Borders: Methods for Random Objects Beyond Euclidean Data, **Organizer:** Paromita Dubey, **Chair:** Yaqing Chen

- **Bharath Sriperumbudur** Spectral regularized kernel two-sample tests
- **Hans-Georg Müller** Geodesic Causal Inference
- **Paromita Dubey** Neyman-Orthogonal Comparison of Regression Functions

14:00-15:30 | Karajan-Hall 3

**Session:** Unified Perspectives on Regularization in Modern Statistics, **Organizer/Chair:** Patrick Rebeschini

- **Arya Akhavan** Sampling-Based Regularisation for Adversarial Linear Bandits
- **Cynthia Rush** The distributionally robust prediction error of the square root LASSO and related estimators
- **Suvrit Sra** Tight generalization bounds in Inverse Optimization

14:00-15:30 | Mozart-Hall 3

**Session:** Recent advances in Dependence Modeling, **Organizer/Chair:** Wolfgang Trutschnig

- **Irène Gijbels** Copula-based estimation of functionals of aggregated risks
- **Ivan Kojadinovic** An algorithmic procedure for solving the generalized minimum information checkerboard copula problem
- **Ingrid Van Keilegom** On an extension of the Cox model for time-varying covariates under dependent censoring with unknown association

14:00-15:30 | Mozart-Hall 1

**Session:** Interactive decision making, **Organizer/Chair:** Alexandre Tsybakov

- **David Janz** Maximum information gain in kernel ridge regression
- **Karim Lounici** A conversion theorem and minimax optimality for continuum contextual bandits
- **Alexander Rakhlin** Elements of Interactive Decision Making

14:00-15:30 | Mozart-Hall 4-5

**Session:** Bridging Statistics and Modern AI: Foundations for Deep Learning and Generative Models, **Organizer:** Yuting Wei, **Chair:** Yuting Wei

- **Chenguang Duan** Inference-Time Alignment for Diffusion Models via Variationally Stable Doob's Matching
- **Koulik Khamaru** Avoiding the Price of Adaptivity: Inference in Linear Contextual Bandits via Stability
- **Daniil Dmitriev** Efficient sampling with discrete diffusion models: Sharp and adaptive guarantees

14:00-15:30 | Wolf Dietrich-Hall 1

**Session:** Statistical inference for data science and AI, **Organizer:** Minge Xie, **Chair:** Yumou Qiu

- **Jian Huang** Continuous Normalizing Flows for Statistical Generative Learning
- **Yong Chen** MOSAiC: a unified framework for lossless, one-shot, federated learning algorithms
- **Min Xu** Optimal Convex M-Estimation via Score Matching

15:30-16:00 | Coffee/Tea Break

16:00-17:00 | Europa-Hall

**Session:** Blackwell Award and Lecture, **Organizer:** IMS Committee on Special Lectures, **Chair:** Tony Cai

- **Cun-Hui Zhang** Empirical Bayes for Dependent Data

17:00-18:00 | Mozart-Hall 4-5

**Session:** New Researchers Group Session, **Organizer/Chair:** Armeen Taeb

- **Arjun Sondhi** Doubly regularized generalized linear models for spatial observations with high-dimensional covariates
- **Alexander Van Werde** On the spectral determinacy of random graphs
- **Rajita Chandak** Convergence of the EM algorithm beyond classical Gaussian regimes

17:00-18:00 | Mozart-Hall 3

**Session:** Rank-based Correlation Measures, **Chair:** Xiaozhu Zhang

- **Sebastian Fuchs** Continuity of Chatterjee's rank correlation and related dependence measures
- **Anna Lyubarskaja** Chatterjee's coefficient is optimal for detecting highly oscillating signals
- **Jan-Lukas Wermuth** Asymptotic Inference for Rank Correlations

17:00-18:00 | Wolf Dietrich-Hall 2

**Session:** Copula-Based Methods, **Chair:** Min Xu

- **Nicolas Dietrich** Nonparametric Estimation of Archimax Copulas and Consequences for Modeling Dependence
- **Lea Maislinger** Multivariate Archimedean copulas may have fractal support
- **Serge Provost** An Alternative Copula Construction for Samples Exhibiting Duplicate Component Values

17:00-18:00 | Karajan-Hall 3

**Session:** Tools for High Dimensional Statistics, **Chair:** David Keppinger

- **Jing Ouyang** Inference on Generalized Latent Variable Models with High-Dimensional Responses and Covariates
- **Armin Schwartzman** Consistency of fraction of variance estimation from summary statistics in high-dimensional linear models
- **Liqun Wang** Adaptive Lq-regularized Estimation of High-dimensional Sparse Covariance Matrix

17:00-18:00 | Wolf Dietrich-Hall 1

**Session:** Adaptive Trials and Decision Rules, **Chair:** Tiffany Tang

- **Matteo Iacopini** A Bayesian Dynamic Latent Space Model for Weighted Networks
- **Jian Wang** A Bayesian Monitoring Approach Based on the Win Ratio for Randomized Phase II Trials with Multiple Time-to-Event Outcomes
- **Yihua Wang** Parametric and Nonparametric Approaches for Phase II Monitoring of Nonlinear Profiles

17:00-18:00 | Karajan-Hall 2

**Session:** Multivariate Dependence Structures, **Chair:** Robert Lunde

- **Tomasz Kozubowski** Flexible skew models via coordinatewise Gaussian mixtures
- **Sarah Lumpp** Identifiability in continuous Lyapunov models with heterogeneous noise
- **Ziang Niu** The blessing of refitting in doubly-robust conditional independence testing procedures

17:00-18:00 | Mozart-Hall 2

**Session:** Geometry, Measures and Applications, **Chair:** Ankan Ganguly

- **Wolfgang Trutschnig** d-stochastic measures with uniform (d-1)-marginals and fractal support
- **Thomas Wilkinson** Testing the calibration of fixed-event probability forecast sequences
- **Masayuki Hemmi** Infinite-dimensional information geometry for semiparametric statistics

17:00-18:00 | Mozart-Hall 1

**Session:** Post-Selection and Debiased Inference, **Chair:** Ashwin Pananjady

- **Davy Paindaveine** Stopping on the last success with unknown odds: Impossibility barriers and quantitative oracle bounds
- **Guenther Walther** Fast and Optimal changepoint detection and localization with Bonferroni triplets

17:00-18:00 | Karajan-Hall 1

**Session:** Reliability and Inference, **Chair:** Gongjun Xu

- **Abdulrahman Aldawsari** A Predictive Bootstrap Technique for Double-Censored Data
- **Abdulmajeed Alharbi** A Predictive Approach for Classifying Future Observations into Ordered Groups
- **Anas Alharshan** Probability Distributions for Component Failures in Multi-Type Systems

18:30 | Europa-Hall **Session:** IMS Presidential Address, Award Ceremony, Chamber Concert & Reception – All attendees welcome, no extra ticket required.

## Tuesday

09:00-10:00 | Europa-Hall

**Session:** IMS Medallion Award and Lecture, **Organizer:** IMS Committee on Special Lectures, **Chair:** Richard Samworth

- **Bodhisattva Sen** Wasserstein-Cramer-Rao Theory of Unbiased Estimation

10:00-10:30 | Coffee Break

10:30-11:30 | Europa-Hall

**Session:** Wald Lecture 2, **Organizer:** IMS Committee on Special Lectures, **Chair:** Kavita Ramanan

- **Tilmann Gneiting** Hierarchies of Calibration: Classification and Regression

10:30-12:00 | Mozart-Hall 1

**Session:** Structured and Expressive Models in High Dimensions, **Organizer:** Jelena Bradic, **Chair:** Marten Wegkamp

- **Pragya Sur** Optimality of Self-distillation in Spiked Covariance Models
- **Theodor Misiakiewicz** Learning Multi-Index Models in High-Dimensions
- **Marten Wegkamp** A New Regression Lens on Multi-Class Classification

10:30-12:00 | Karajan-Hall 2

**Session:** Recent advances in functional data analysis and metric statistics, **Organizer:** Yaqing Chen, **Chair:** Paromita Dubey

- **Helle Sørensen** Local inference for functional time series
- **Yaqing Chen** DiPMInd: Distance Profile based Mutual Independence testing for random objects
- **Changjun Im** Local Fréchet Regression with Riemannian Manifold Predictors

10:30-12:00 | Mozart-Hall 4-5

**Session:** Advances in Learning, Optimization, and Generalization in Modern Stochastic Systems, **Organizer/Chair:** Jing Dong

- **Jing Dong** Right-Sizing Communication and Recommendation Set Size in AI-Assisted Search
- **Alessandro Arlotto** Reoptimization in the dynamic and stochastic knapsack problem: from near-optimality to distributional equivalence
- **Jiaming Xu** Random geometric graphs with smooth kernels: sharp detection threshold and a spectral conjecture

10:30-12:00 | Mozart-Hall 2

**Session:** Statistical mechanics, **Organizer/Chair:** Alexander Glazman

- **Markus Heydenreich** Critical behaviour for weight-dependent random connection models
- **Diederik van Engelenburg** One-arm exponents of the Ising model
- **Matan Harel** Planar percolation and the loop  $O(n)$  model

10:30-12:00 | Karajan-Hall 1

**Session:** Structured Statistical Learning and Post-Learning Inference in High-Dimensional Settings, **Organizer:** Bei Jiang, **Chair:** Nancy Reid

- **Todd Ogden** Functional Metric Learning for Classification Problems
- **Yanbo Tang** Post-reduction inference for confidence sets of models
- **Peter Song** Ensemble Inference in Supervised Homogeneity Pursuit

10:30-12:00 | Karajan-Hall 3

**Session:** Recent developments in change-point analysis, **Organizer:** Feiyu Jiang, **Chair:** Runmin Wang

- **Guanghai Wang** Distribution-Free and Model-Agnostic Change-point Detection with Finite-Sample Guarantees
- **Kin Wai Chan** Doubly self-normalized change point test under local stationarity via sparse subsampling and stationary pooling
- **Runmin Wang** High-dimensional Change-point Detection Using Generalized Homogeneity Metrics

10:30-12:00 | Wolf Dietrich-Hall 1

**Session:** Towards Robust and Explainable Functional Data Analysis, **Organizer/Chair:** Una Radojicic

- **Tomas Masak** The Functional Graphical Lasso
- **Marcus Mayrhofer** Robustness and Explainability in Multivariate Functional Data Analysis
- **Klaus Nordhausen** Functional AMUSE for multivariate functional separable time series

10:30-12:00 | Mozart-Hall 3

**Session:** Interdisciplinary perspectives at the interface between probability theory, ecology and evolution, **Organizer/Chair:** Amandine Véber

- **Coralie Fritsch** Niche construction emerging from fast ecological and slow evolutionary and environmental timescales in individual-based models
- **Zsofia Talyigas** Selection of the fittest or selection of the luckiest: the emergence of Goodhart's law in evolution
- **Jochen Blath** Emergence of host dormancy in the presence of a persistent virus epidemic

10:30-12:00 | Wolf Dietrich-Hall 2

**Session:** Proper scoring rules, **Organizer:** Kartik Waghmare, **Chair:** Kartik Waghmare

- **Erez Buchweitz** Calibration and minimizing loss
- **Monica Musio** The Central Role of Proper Scoring Rules in Modern Statistics: Theory, Robustness, and Applications to Complex Data
- **Ritabrata Dutta** Generalised Bayesian model selection

12:00-14:00 | Lunch Break

12:00-14:00 | Paracelsus Hall - IMS Editors Luncheon – Closed Meeting -

14:00-15:30 | Mozart-Hall 2

**Session:** Honest Inference for Flexible Models, **Organizer:** Jelena Bradic, **Chair:** Arun Kuchibhotla

- **Arun Kuchibhotla** From Theory to Practice: inference beyond independence and CLT
- **Subhabrata Sen** Spectral algorithms for signal recovery from multi-modal data
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14:00-15:30 | Wolf Dietrich-Hall 2

**Session:** Recent Developments in Head-to-Head Comparisons and Stochastic Preference Modeling, **Organizer:** Olga Demler, **Chair:** Tilmann Gneiting

- **Olga Demler** Pairwise Comparison Metrics: AUC, Win Ratio, and the Problem of Non-Transitivity
- **Anna Györfy-Kerekes** Non-transitivity in Pairwise Comparisons
- **Patrick Langthaler** A nonparametric test for survival curves combining the Mann-Whitney effect and an overlap index.

14:00-15:30 | Mozart-Hall 4-5

**Session:** Conformal prediction for non-exchangeable data, **Organizers:** Aymeric Dieuleveut/Johanna Ziegel, **Chair:** Nicolai Amann

- **Margaux Zaffran** On the hardness of group-conditional distribution-free predictive inference
- **Simone Vantini** Real-time anomaly detection in space-time processes via conformal prediction and functional data analysis
- **Isaac Gibbs** Calibrated Multi-Level Quantile Forecasting

14:00-15:30 | Karajan-Hall 3

**Session:** Chaotic systems from physics, **Organizer/Chair:** Laszlo Erdos

- **Oleksii Kolupaiev** The eigenvalues of iid matrices are hyperuniform
- **Antti Knowles** Random graphs as models of quantum disorder
- **Chokri Manai** Glassiness in Quantum Systems

14:00-15:30 | Mozart-Hall 1

**Session:** Empirical Bayes for approximate oracle inference, **Organizer/Chair:** Peter Hoff

- **Nikolaos Ignatiadis** How does limma-trend work? An empirical partially Bayes perspective
- **Jake Soloff** Calibration in multiple hypothesis testing
- **Surya Tokdar** Selective and marginal selective inference for exceptional groups

14:00-15:30 | Karajan-Hall 1

**Session:** Modeling complex network-linked data, **Organizer/Chair:** Liza Levina

- **Sofia Olhede** Modelling multiplex networks
- **Robert Lunde** Conformal Prediction for Dyadic Regression
- **Keith Levin** Testing for correlation between network structure and high-dimensional node covariates

14:00-15:30 | Mozart-Hall 3

**Session:** Probability Distributions via Moments and Cumulants, **Organizer:** Jordan Stoyanov, **Chair:** Gabor Lugosi

- **Jordan Stoyanov** Discussion on Open Questions Involving Moments and Cumulants
- **Jiechen Zhang** Moments and Cumulants in Probability Theory: Recent Results and Perspectives
- **Martin Minchev** Moments of Exponential Functionals of Lévy Processes and Bernstein-Gamma Functions

14:00-15:30 | Wolf Dietrich-Hall 1

**Session:** Random processes on graphs, **Organizer:** Remco van der Hofstad, **Chair:** Remco van der Hofstad

- **Kavita Ramanan** Quantitative Unimodular Propagation of Chaos and its Consequences
- **Maria Deijfen** Surviving from the tip of a cone
- **Amandine Véber** A "piecewise Gaussian" limit for the fluctuations of a stochastic spatial chemical reaction network

14:00-15:30 | Karajan-Hall 2

**Session:** Advances in Stochastic Gradient Descent: Algorithms and Asymptotics, **Organizer:** Dong Xia, **Chair:** Congyuan Duan

- **Congyuan Duan** Online policy learning and inference by matrix completion
- **Yuchen Wu** Provably Reliable Classifier Guidance via Cross-Entropy Control

14:00-15:30 | Europa-Hall

**Session:** Random matrices in machine learning, **Organizer/Chair:** Yizhe Zhu

- **Dmitriy Kunisky** Universality of first-order methods on random and deterministic matrices
- **Benjamin McKenna** Universality for the global spectrum of random inner-product kernel matrices
- **Ludovic Stephan** Spectral methods for graph inference: the case of community detection

15:30-16:00 | Coffee/Tea Break

16:00-17:00 | Europa-Hall

**Session:** IMS Medallion Award and Lecture, **Organizer:** IMS Committee on Special Lectures, **Chair:** Richard Samworth

- **Jelle Goeman** Principles and Flexibility in Multiple Testing

17:00-18:00 | Mozart-Hall 4-5

**Session:** IMS Lawrence D. Brown Ph.D. Student Award, **Organizer:** IMS Committee on the Brown Award, **Chair:** Xihong Lin

- **Yu Gui** Distributionally robust risk evaluation with an isotonic constraint
- **Reese Pathak** Revisiting M-estimation: risk bounds, optimality results, and probabilistic connections
- **Jin-Hong Du** Seeing through correlations: Disentangled feature importance

17:00-18:00 | Mozart-Hall 3

**Session:** Diffusion & SDEs, **Chair:** Ayalvadi Ganesh

- **Fabian Bleile** Efficient Learning of Stationary Diffusions with Stein-type Discrepancies
- **Richard Schwank** Non-parametric recovery of causal diffusion mechanisms from equilibrium observations
- **Jixin Wang** Drift Estimation and Donsker Theorems for SDEs with Non-smooth Drift

17:00-18:00 | Wolf Dietrich-Hall 2

**Session:** Privacy-Preserving Learning, **Chair:** Rajita Chandak

- **Qilong Lu** Versatile Differentially Private Learning for General Loss Functions
- **Maria Chiara Menicucci** Bayesian Nonparametric Privacy-Preserving Synthetic Data Generation
- **Yizhe Zhu** Minimax optimal differentially private synthetic data for smooth queries

17:00-18:00 | Karajan-Hall 3

**Session:** Robust Statistics, **Chair:** Jan-Lukas Wermuth

- **Christof Schötz** Power Fréchet Means for Robust Statistics in Metric Spaces
- **Yisha Yao** Wasserstein Spatial Depth
- **Mi Hong Yim** Preventive Use of Korean Medicine Among Children and Adolescents in Korea: A Statistical Analysis of National Real-World Data

17:00-18:00 | Wolf Dietrich-Hall 1

**Session:** Causal Inference in Complex Settings, **Chair:** Matthew Parry

- **Benedikt Fröhlich** Reducing correlation bias of MDI importance for tree-based estimators through local sample weighting
- **Nicolas Alexander Ihlo** Provable Recovery of Locally Important Signed Features and Interactions from Random Forest
- **Yurou Liang** Likelihood-Based Nonparametric Causal Discovery under Latent Confounding

17:00-18:00 | Karajan-Hall 2

**Session:** Spatial and Spatio-Temporal Learning, **Chair:** Rebecca Willett

- **Zaheer Ahmed** Uncovering Latent Structures in Large-Scale Cognitive Conflict Data Using a Novel Probabilistic Model-based Clustering Approach
- **Julius Baumhake** Testing for Isotropy of Function-Valued Random Fields
- **Seungwoo Kang** Multiview Functional Clustering Using Latent Representations of Phase and Amplitude Components

17:00-18:00 | Mozart-Hall 2

**Session:** Central Limit Theorems for Dependent Variables, **Chair:** Mike Racz

- **Lujia Bai** Validating spatial-temporal separability for stationary processes
- **Xiao Fang** Central limit theorem for high temperature Ising models via martingale embedding
- **Davide Ferrari** A Single-Observation Uniformity Test via Multiscale Lacunary Harmonics

17:00-18:00 | Mozart-Hall 1

**Session:** Inference for High Dimensional Data, **Chair:** Dominic Edelmann

- **Deep Ghoshal** Inference for Change Point in Marginal Distribution of High Dimensional Time Series
- **Alex Trindade** Optimized Inference for High-Dimensional Vector Autoregressions
- **Rainer Winkelmann** Underreporting in count data models: some new results and an application

17:00-18:00 | Karajan-Hall 1

**Session:** Dependence Modeling and Copulas, **Chair:** Min Xu

- **Inez De Batselier** A flexible parametric regression approach to handle left-censored outcome and covariate information.
- **Dario Kieffer** The weak-feature-impact phase transition of the NPMLE in monotone binary regression
- **Kai Schärer** Non-Parametric Distributional Regression via Sklar's Theorem and Empirical Copula Approximations

18:00 | Sternbräu Salzburg, Tower Room – Annals of Statistics Editors Meeting – Closed Meeting

## Wednesday

9:00-10:00 | Karajan-Hall 3

**Session:** Bayesian Inference and Uncertainty, **Chair:** Alexander Van Werde

- **Chenguang Duan** Provable Diffusion Posterior Sampling for Bayesian Inversion
- **Volodymyr Minin** Probabilistic forecasting via continuously weighted, proper score-optimal ensembles

9:00-10:00 | Wolf Dietrich-Hall 1

**Session:** Branching and Oscillating Brownian Motion, **Chair:** Eva Locherbach

- **Johannes Brutsche** Self-organized criticality under arbitrary sampling frequencies
- **Jieliang Hong** Rescaled SIR epidemic processes converge to super-Brownian motion in four or more dimensions
- **Dominic T. Schickentanz** Critical Decoration of Branching Brownian Motion via Time-Inhomogeneous Additive Penalization Methods

9:00-10:00 | Karajan-Hall 2

**Session:** Causal Inference and Prediction Sets, **Chair:** Jan-Lukas Wermuth

- **Leopold Mareis** Cost-Aware Optimized Front-Door Experimental Design
- **Ha-Young Shin** Treatment effects on Hadamard spaces
- **Nicolai Amann** Conditional validity and a fast approximation formula of full conformal prediction sets

9:00-10:00 | Mozart-Hall 2

**Session:** Network Models and Graph Inference, **Chair:** Jan Hannig

- **Rajdeep Brahma** Two-Sample Hypothesis Testing for Subspace Equality in Network Data
- **Dominik Stöger** Non-convex matrix sensing: Breaking the quadratic rank barrier in the sample complexity

9:00-10:00 | Mozart-Hall 1

**Session:** Structure in High Dimensional Data, **Chair:** Dominic Edelmann

- **Ferdinand Buchner** Identifying risky flight landings using multivariate vine copula based regression models
- **Seeun Park** Tail-oriented Factor Models Using Expectiles
- **Angelika Rohde** Asymptotic equivalence for nonparametric additive regression

9:00-10:00 | Mozart-Hall 3

**Session:** Methods for Censored Data, **Chair:** Matthew Parry

- **Wenqing He** Boosting methods for interval censored data with regression and classification
- **Jef Jonkers** Functional Calibration for Survival Prediction under Right Censoring

9:00-10:00 | Wolf Dietrich-Hall 2

**Session:** E-Values & Related Inference Approaches, **Chair:** Rebecca Willett

- **Nick Koning** Equivalence testing with data-dependent and post-hoc equivalence margins
- **Lorenz Matz** Analyzing the relationship between universal and classical likelihood ratio inference: Almost sure-relations and asymptotic rates

10:00-10:30 | Coffee Break

10:30-12:00 | Mozart-Hall 4-5

**Session:** Advances in Unsupervised Learning & Causal Discovery, **Organizer:** Genevera Allen, **Chair:** Tony Cai

- **Mathias Drton** Parameter identification in linear non-Gaussian causal models under general confounding
- **Tiffany Tang** Consensus dimension reduction via multi-view learning
- **Armeen Taeb** Model-oriented distances between causal graphs via posets

10:30-12:00 | Karajan-Hall 1

**Session:** Inference Beyond the Textbook: Robustness, Adaptivity, and Cross-Fitting, **Organizer:** Jelena Bradic, **Chair:** Zhimei Ren

- **Yaroslav Mukhin** Surrogate-powered Causal Inference
- **Zhimei Ren** Assumption-lean weak limits and tests for two-stage adaptive experiments
- **Yuting Wei** Statistical Inference under Adaptive Sampling with LinUCB

10:30-12:00 | Mozart-Hall 3

**Session:** Random spatial systems, **Organizer/Chair:** Jack Hanson

- **Alice Callegaro** Linear spreading speed of a branching annihilating random walk
- **Maximilian Fels** Gaussian Free Field with Hard Wall Constraints From Discrete Trees to Planar Domains
- **Antal A. Jarai** On the number of particles in Activated Random Walk and the Abelian sandpile.

10:30-12:00 | Mozart-Hall 1

**Session:** Robust Statistics for Matrix and Tensor Data, **Organizer/Chair:** Marcus Mayrhofer

- **Agustín Mayo-Iscar** Trimming and constraints based robust clustering for matrix-variate data
- **Una Radojicic** A Minimum Covariance Determinant Approach for Matrix and Tensor Data
- **Fabio Centofanti** Casewise and Cellwise Robust Multilinear Principal Component Analysis

10:30-12:00 | Mozart-Hall 2

**Session:** Recent Advances in Iterative Methods for Random Optimization, **Organizer:** Cynthia Rush, **Chair:** Jingbo Liu

- **Zhou Fan** High-dimensional learning dynamics of multi-pass Stochastic Gradient Descent in multi-index models
- **Ashwin Pananjady** State evolution beyond first order methods
- **Qiyang Han** Algorithmic inference via nonconvex gradient descent

10:30-12:00 | Karajan-Hall 3

**Session:** Statistical Optimal Transport, **Organizers/Chairs:** Jonathan Ansari; Johannes Wiesel

- **Carola-Bibiane Schönlieb** Optimal Transport for Inverse Problems
- **Axel Munk** ANOVA-type Wasserstein tests for factorial designs
- **Gudmund Pammer** A weak transport approach to the Schrödinger-Bass problem

10:30-12:00 | Karajan-Hall 2

**Session:** Generative Models for Statistical Inference, **Organizer:** Yao Xie, **Chair:** Gilles Mordant

- **Gilles Mordant** Statistics for regularized optimal transport with decreasing regularization
- **Kazuma Sawaya** Provable false discovery rate control for deep feature selection
- **Kangjie Zhou** Statistical Inference in an Interactive Learning Paradigm

10:30-12:00 | Wolf Dietrich-Hall 2

**Session:** Stochastic Networks, **Organizer:** Ilze Ziedins, **Chair:** Ayalvadi Ganesh

- **Ayalvadi Ganesh** Decentralised bipartite matching
- **Ankan Ganguly** Mean-Field Analysis of an Interacting Particle System on Dynamically Coevolving Graphs

12:00-14:00 | Lunch Break

12:00-14:00 | Paracelsus Hall – IMS Council Meeting – Closed Meeting

14:00-15:30 | Karajan-Hall 2

**Session:** Statistical Learning with Noisy Labels, Privacy Perturbations, and Latent Structures, **Organizer:** Bei Jiang, **Chair:** Nancy Reid

- **Grace Yi** Causal Learning of Paired Vectors with Label Noise: Impact and Correction Methods
- **Eric Kolaczyk** Privacy-Utility Tradeoffs of Noisy Stochastic Gradient Descent in High Dimensions
- **Gongjun Xu** Identifiability and Inference for Generalized Latent Factor Models

14:00-15:30 | Wolf Dietrich-Hall 1

**Session:** Modern Statistical Approaches to Network Data, **Organizer:** Ji Zhu, **Chair:** Keith Levin

- **Jian Kang** BSNMANI: Bayesian scalar-on-network regression with manifold learning
- **Tianxi Li** Graph Release with Assured Node Differential Privacy
- **Liza Levina** Comparing groups of networks

14:00-15:30 | Mozart-Hall 2

**Session:** Recent advances in statistics for stochastic processes, **Organizer/Chair:** Mark Podolskij

- **Eva Loecherbach** Interacting point processes: How does the mean field limit help us for statistical inference on them?
- **Sven Wang** On polynomial-time computation in PDE models
- **Chiara Amorino** Parameter estimation for graphon-interacting particle systems from discrete observations

14:00-15:30 | Karajan-Hall 3

**Session:** Stochastic Analysis and Applications, **Organizer/Chair:** Kavita Ramanan

- **Arnaud Guillin** Mean field particle system: propagation of chaos and concentration
- **Shiva Darshan** A non-equilibrium equivalence of ensembles result via propagation of chaos
- **Yuansi Chen** Recent progress on Talagrand's convolution conjecture

14:00-15:30 | Karajan-Hall 1

**Session:** Post-selection inference, **Organizer/Chair:** Daniel Garcia Rasines

- **Snigdha Panigrahi** Hierarchical Clustering with Confidence
- **Sifan Liu** Flexible Selective Inference with Flow-based Transport Maps
- **Tobias Freidling** Selective Inference in Adaptive Trials

14:00-15:30 | Europa-Hall

**Session:** Royal Statistical Society Session, **Organizer:** RSS, **Chair:** Richard Samworth

- **Oliver Dukes** Optimal binning for treatment effect heterogeneity
- **Elliot Young** Outtrigger local polynomial regression
- **Xinwei Shen** Generalization via distributional learning

14:00-15:30 | Mozart-Hall 3

**Session:** Combinatorial aspects of random matrix theory, **Organizer/Chair:** Alexander Van Werde

- **Nikita Lvov** On the satisfaction frequency of spectral characterization conditions
- **András Mészáros** A phase transition for the corank of random band matrices over  $F_p$
- **Amin Coja-Oghlan** The random XORSAT decimation process

14:00-15:30 | Wolf Dietrich-Hall 2

**Session:** Interdisciplinary perspectives at the interface between probability theory and cell biology, **Organizer:** Amandine Véber, **Chair:** Amandine Véber

- **Sarah Kaakai** Nonparametric hazard rate estimation with associated kernels: theory and application to a two-phase aging model
- **Alexandre Perrin** DNA replication and cell division cycles coordination in E. coli: a mathematical approach to cell physiology
- **Timothé Ringiard** A stochastic continuous-space model and its large population limit for the dynamic of actin polymerisation and depolymerisation in the cell

14:00-15:30 | Mozart-Hall 1

**Session:** Probability Foundations for Robust and Private Learning, **Organizer:** Anand N. Vidyashankar, **Chair:** Anand Vidyashankar

- **Jeffrey Collamore** Large Deviations and Bahadur Efficiency for General Divergence-based Estimators
- **Lasse Vuursteen** How Differential Privacy Reshapes Optimal Statistical Design
- **David Kepplinger** Robust and Efficient Domain Adaptation via  $\phi$ -Divergences

14:00-15:30 | Mozart-Hall 4-5

**Session:** From Simulators to Generative Models: Uncertainty Quantification and Model Interpretability, **Organizer:** Minge Xie, **Chair:** Ruobin Gong

- **Sehwan Kim** Extended Fiducial Inference for Individual Treatment Effects via Deep Neural Networks
- **Ann Lee** Trustworthy scientific inference with neural density estimators in intractable likelihood settings
- **Jan Hannig** Generative Fiducial Models

15:30-16:00 | Coffee/Tea Break

16:00-17:00 | Mozart-Hall 3

**Session:** Perspectives on Goodness of Fit, **Chair:** Xiaozhu Zhang

- **Dominic Edelmann** Omnibus Goodness-of-Fit Testing for Distributions on Stiefel Manifolds
- **Hanke Guo** Rank-restricted Wald tests for goodness-of-fit testing
- **Ömer Sercik** Goodness-of-Fit Tests for the Survival Copula and Cross-Ratio Function based on Nonparametric Bernstein-based Estimators

16:00-17:00 | Wolf Dietrich-Hall 2

**Session:** Foundations of Variable Selection, **Chair:** Rajita Chandak

- **Maxim Fedotov** Projected Information Criteria
- **Adriano Zambom** Consistent Variable Selection for GARCH-X Models

16:00-17:00 | Karajan-Hall 3

**Session:** Sparsity and High-Dimensional Inference, **Chair:** David Kepplinger

- **Shubhangi Ghosh** Signal-to-noise ratio aware minimax analysis of sparse linear regression
- **Lucas Kania** Optimal Inference with Black-box Predictions
- **Christopher Saunders** Statistical Analysis of Forensic Black Box Studies

16:00-17:00 | Wolf Dietrich-Hall 1

**Session:** Clinical Trials: Design and Inference, **Chair:** Ashwin Pananjady

- **Agustín García Nogales** Some Examples on Optimal Bayesian Estimation of the Sampling Distribution
- **Paloma Pérez Fernández** On a Property of Conditional Expectation for Markov Kernels
- **Weijing Wang** Two-Sample Comparison in the Presence of Long-Term Survivors

16:00-17:00 | Karajan-Hall 2

**Session:** Scoring and risk mitigation, **Chair:** Robert Lunde

- **Jingbo Liu** Simple and sharp generalization bounds via lifting
- **Maike de Jongh** Controlled stochastic growth of structures in the zero-temperature Ising model
- **Johannes Resin** Debiasing Score Decompositions for Reliable Inference

16:00-17:00 | Mozart-Hall 2

**Session:** Stochastic processes and applications, **Chair:** Benedikt Fröhlich

- **Frieder Droullier** On Non-Markovian INAR(1) Processes
- **Celia Garcia Pareja** Universal diffusion limit for Markovian models of evolution in structured populations with migration
- **Fabrice Wunderlich** Weak convergence of Volterra-type stochastic integrals in Skorokhod space

16:00-17:00 | Mozart-Hall 1

**Session:** Regularization and Sparse Estimation, **Chair:** Gongjun Xu

- **Peter Hyland** SGD Convergence for GLMs via Local Curvature: A Concentration of Measure Approach
- **Mengqi Lou** Computationally efficient reductions between some statistical models
- **Constantinos Petropoulos** Improved estimators for functions of scale parameters in mixture models

16:00-17:00 | Karajan-Hall 1

**Session:** Scalable Computation and Learning, **Chair:** Julius Baumhake

- **Jisoo Choi** Dual-Homotopy Framework for Constrained EM Algorithm
- **Pushkar Kale** Moment constrained cutting feedback for modular Bayesian models
- **Bernhard Spangl** An IDEAL algorithm for stream-based selective sampling in regression scenarios

19:00 | Conference Banquet Dinner (extra ticket required)

## Thursday

9:00-10:00 | Europa-Hall

**Session:** IMS Medallion Award and Lecture, **Organizer:** IMS Committee on Special Lectures, **Chair:** Richard Samworth

- **Ian McKeague** — What we can know from complex functional data

10:00-10:30 | Coffee Break

10:30-12:00 | Europa-Hall

**Session:** Modern Approaches to Inference and Estimation, **Organizer:** Genevera Allen, **Chair:** Arne Bathke

- **Matthew Parry** Application of control theory to online parameter estimation
- **Minge Xie** Model-Free Inference for High-Dimensional Binary Classification Using Repro Samples
- **Peter Hoff** Universal prediction with extended ranks

10:30-12:00 | Mozart-Hall 4-5

**Session:** The many facets of score matching, **Organizer:** Regina Liu, **Chair:** Min Xu

- **Gil Kur** Minimum Norm Interpolation Under Gaussian Covariates
- **Oliver Feng** Learning the score under shape constraints
- **Lucy Xia** Is the F-test doubly robust?

10:30-12:00 | Mozart-Hall 3

**Session:** Structure and Convergence in High-Dimensional Probability, **Organizer/Chair:** Oanh Nguyen

- **Hoi Nguyen** Random polynomials: old and new
- **Paul Mansanarez** Edgeworth expansion on Wiener chaos
- **Oanh Nguyen** Random polynomials with dependent coefficients

10:30-12:00 | Mozart-Hall 2

**Session:** sub-Gaussian properties and robustness, **Organizer/Chair:** Zoraida Rico

- **Gabor Lugosi** Robust, sub-Gaussian mean estimators in metric spaces
- **Daniel Bartl** On the role of Rademacher complexities in statistical learning
- **Zoraida Rico** Robust and Sub-Gaussian Estimation of Means and Covariances

10:30-12:00 | Karajan-Hall 1

**Session:** E-Values: local, compound and conditional, **Organizer:** Aaditya Ramdas, **Chair:** Isaac Gibbs

- **Rianne de Heide** Local e-values for intersection hypotheses
- **Peter Grünwald** E-Values obtained by Conditioning on a Sufficient Statistic are Essentially Optimal
- **Dante de Roos** Rao-Blackwellized e-variables

10:30-12:00 | Wolf Dietrich-Hall 1

**Session:** Modern Optimization for Statistical Learning, **Organizer/Chair:** Armeen Taeb

- **Zijian Guo** Statistical analysis of conditional group distributionally robust optimization with cross-entropy loss
- **Xiaozhu Zhang** Convex Mixed-Integer Programming for Causal Additive Models with Optimization and Statistical Guarantees
- **Ryan Tibshirani** Gradient equilibrium, Blackwell approachability, and ergodicity

10:30-12:00 | Wolf Dietrich-Hall 2

**Session:** Particle Systems in Random Environments, **Organizer:** Daniel Valesin, **Chair:** Roberto Imbuzeiro Oliveira

- **Rangel Baldasso** Percolation on Hierarchical Lattices
- **Anna Ben-Hamou** Cutoff for independent random walks on the circle conditioned not to intersect
- **Marco Seiler** The contact process on dynamical random trees with degree dependence

10:30-12:00 | Karajan-Hall 3

**Session:** Recent advances in probabilistic number theory, **Organizer:** Mo Dick Wong, **Chair:** Mo Dick Wong

- **Sun Kai Leung** Sato--Tate random multiplicative function
- **Eero Saksman** Chaos and Riemann zeta function on the critical line
- **Ofir Gorodetsky** The distribution of partial sums of the Steinhaus function

10:30-12:00 | Mozart-Hall 1

**Session:** Statistical Inference and uncertainty quantification in the age of AI, **Organizer:** Minge Xie, **Chair:** Jingmei Qiu

- **Philip Ernst** Yule's "nonsense correlation": Moments, density, and tests of independence for non-stationary Gaussian processes
- **Solomon Harrar** Analysis of Multiple Outcomes in Contaminated Trials Reinforced With Validation Data
- **Ruobin Gong** Simulation-Based Methods for Valid Inference from Privacy-Protected Data

10:30-12:00 | Karajan-Hall 2

**Session:** Statistical Inference on Preferential Attachment Networks, **Organizer/Chair:** Jiaming Xu

- **Miklos Rácz** Community Detection and Modularity in the Preferential Attachment Block Model
- **Remco van der Hofstad** Change-point detection in preferential attachment models
- **Hang Du** A Proof of The Changepoint Detection Threshold Conjecture in Preferential Attachment Models