

# Workshop on **—**Mathematical Statistics in the **Information Age**

Statistical efficiency and computational tractability

Potsdam, March 21 − 22, 2024

# Confirmed invited speakers include

Gilles Blanchard (Paris, France) Merle Behr (Regensburg, Germany) Elisabeth Gassiat (Paris, France) Sonja Greven (Berlin, Germany) Claudia Kirch (Magdeburg, Germany) Michael Kohler (Darmstadt, Germany) Enno Mammen (Heidelberg, Germany) Thomas Mikosch (Copenhagen, Denmark) Eric Moulines (Paris, France) Jonas Peters (Zürich, Switzerland)

# The workshop is sponsored by the DFG Research Unit 5381

https://for5381.uni-freiburg.de/en/

## Venue

Campus Neues Palais of the Universität Potsdam Am Neuen Palais 10, 14469 Potsdam, Germany

## Registration

The workshop has no fees. Registration is possible by e-mail to sekretariat@stochastik.uni-freiburg.de, but not required.

https://for5381.uni-freiburg.de/en/events/



University of Potsdam

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#### Thursday, March 21, 2024

08:30 - 09:00	Welcome coffee and opening remarks
09:00 – 09:50	Jonas Peters (ETH Zürich, Switzerland)
	Can we go beyond the observed distribution? Estimating price elasticities and testing hypotheses under distributional shifts
10:00 - 10:50	Sonja Greven (Humboldt University of Berlin, Germany)
	Elastic methods for curves in two or more dimensions
11:00 – 11:30	Coffee break
11:30 – 12:20	Claudia Kirch (Otto von Guericke University Magdeburg, Germany)
	Scan statistics for the detection of anomalies in large image data
12:20 – 13:30	Lunch break
13:30 – 14:20	Merle Behr (University of Regensburg, Germany)
	Provable Boolean interaction recovery from tree ensemble obtained via random forests
14:30 – 15:20	Gilles Blanchard (Université Paris Saclay, France)
	Estimating multiple high-dimensional vector means by aggregation
15:30 – 16:00	Coffee break
16:00 - 16:50	Eric Moulines (Institut Polytechnique de Paris, France)
	Bayesian inverse problems with score-based diffusion priors
17:00 – 17:50	Michael Kohler (TU Darmstadt, Germany)
	On the rate of convergence of an over-parametrized Transformer classifier learned by
10.00	gradient descent
19:00	Dinner

#### Friday, March 22, 2024

Welcome coffee
Enno Mammen (Heidelberg University, Germany)
Local Limit Theorems and Strong Approximations for Robbins-Monro Procedures
Elisabeth Gassiat (Université Paris Saclay, France)
Model-based Clustering using Non-parametric Hidden Markov Models
Coffee break
Thomas Mikosch (University of Copenhagen, Denmark)
Extreme value theory for heavy-tailed time series
Lunch break

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