Karlsruher Institut für Technologie

Institut für Stochastik

Einladung zu einem Vortrag in der

AG STOCHASTIK

am Dienstag, 09.06.2026, um 15.45 Uhr.

Dr. Zhongwei Zhang

Institut für Statistik

spricht über das Thema

On the extrapolation of statistical and AI models

In statistical and AI applications, models are often required to make predictions for inputs or observations that lie outside the support of the training data. This challenge is particularly prevalent in weather and climate science, as climate change is increasingly producing conditions that exceed the range of historical observations. Consequently, understanding the extrapolation properties of these models is critical for effective risk assessment and management. In this talk, I will first discuss the extrapolation of moving average processes driven by exponential-tailed Lévy noise, whose special cases are popularly used in spatial statistics and financial econometrics. In the second part, I will talk about the extrapolation capabilities of AI weather forecasting models through the lens of statistical forecast evaluation. This talk is based on joint work with David Bolin, Boris Bonev, Sebastian Engelke, Erich Fischer, Raphaël Huser, Sebastian Lerch, and Jakob Zscheischler.

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Die Dozentinnen und Dozenten der Stochastik