Karlsruher Institut für Technologie

INSTITUTE FOR OPERATIONS RESEARCH

VORträge zum Operations Research

Kolloquium des Instituts für Operations Research

Zeit:	Dienstag, 01. Dezember 2026, 17:00-18:30 Uhr
Ort:	**Gebäude 01.87, Raum 5B 25-26**
Es spricht:	Dr. Marcus Rockel, Department of Quantitative Finance, Albert-Ludwigs-Universität Freiburg
Zum Thema:	**Measuring predictability instead of monotone association: Chatterjee's rank correlation and its relation to Spearman and Kendall**

Classical correlation coefficients such as Spearman's ρ and Kendall's τ measure monotone association: for a U-shaped relationship they can be close to zero even if Y is a deterministic function of X. Chatterjee's rank correlation ξ instead measures how well Y can be predicted from X.

It is 0 exactly under independence, 1 exactly when Y is a function of X, and it comes with a remarkably simple estimator. The talk introduces the coefficient and reviews its key properties and those of its estimator.

It then asks what a value of ξ means on the classical scales of ρ and τ: under positive dependence the three coefficients are always ordered as $\xi \leq \tau \leq \rho$, and in general ρ can exceed ξ by at most 0.4.

Die Vorträge zum Operations Research wenden sich an alle Interessierten!

Bei Rückfragen wenden Sie sich bitte an:
Prof. Dr. Oliver Grothe, Institut für Operations Research