Kolloquium „Statistische Methoden in der empirischen Forschung“

Wann: 9. Dezember 2025, 17:00 – 18:30 Uhr

Wo: Ausschließlich online; der Link wird auf der Website zur Verfügung gestellt

Vortragssprache: Englisch

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Flagging extreme clusters in mixed models: Weighted and self-calibrated predictors as alternative to commonly used predictors

Statistical models incorporating cluster-specific intercepts are commonly used in hierarchical settings, e.g., observations clustered within patients or patients clustered within hospitals. Predicted values of these intercepts are often used to quantify cluster deviations or identify or “flag” extreme or outlying values, such as poorly performing hospitals or patients with rapid declines in their health.

We have developed new flagging methods based on predictors that minimize a weighted mean square error of prediction. These new methods are simple to use and interpret, and have a much higher rate of correctly flagging extreme clusters (compared to traditional methods) while controlling the incorrect flagging rate. We illustrate their application using data on readmission rates for children admitted to the hospital for asthma care.