Einladung

Würzburger Mathematisches Kolloquium

Julius-Maximilians-Universität Würzburg • Institut für Mathematik

Merle Behr

Universität Regensburg

Interpretability from Random Forest Tree Ensembles

Dienstag, 18. November 2025 • 14:15 Uhr

Seminarraum SE41 • Humboldt-Bau (Emil-Fischer-Straße 41, 97074 Würzburg)

Der Vortrag wird auch als Zoom-Meeting übertragen: go.uniwue.de/ifmcolloquium-zoom

Abstract. In many machine learning applications, especially in healthcare and the natural sciences, interpretability is as important as prediction accuracy. Random forests, renowned for their predictive strength and ability to handle high-dimensional data, are frequently used in such contexts. This talk delves into methods for systematically analyzing the tree structure of random forest ensembles to uncover influential features and their interactions. We present theoretical consistency results supporting this interpretability framework and demonstrate its application in identifying genetic interactions that illuminate genotype-phenotype relationships.