Einladung

Würzburger Mathematisches Kolloquium

Julius-Maximilians-Universität Würzburg • Institut für Mathematik

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Potential for Research and Practice for Data-ing and AI Literacy in School Mathematics

Dienstag, 28. Oktober 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. Within mathematics education, AI concepts and processes closely intersect with data practices – collecting, representing, modeling, and interpreting data – and with probabilistic/statistical reasoning, making Data Handling and Probability (DHP) a promising locus for authentic learning within AI contexts. This interdisciplinary interconnection opens up educational opportunities for subject-specific enactments, enabling teachers and students to encounter AI concepts meaningfully through mathematical practices. Recent work in statistics education recasts these practices as "data-ing" (Fielding et al., 2025) – a holistic orientation to reasoning with data that emphasizes iteration, sense-making, and communication, not just procedures – providing a useful lens for integrating AI contexts into topics like DHP. In this talk, I first share some previous work on developing students' computational thinking and AI literacy in school mathematics settings. Then, I discuss and propose a rapidly expanding area of inquiry on incorporating data and AI literacy in strengthening the empirical foundation of AI in mathematics education. In doing so, I am to contribute timely evidence and foster dialogue on the conceptual, methodological, and practical implications in the area.