Mathematisches Kolloquium

Mittwoch, 21. Mai 2025
Sky Lounge

EINLADUNG

Bernd Hofmann
(Technische Universität Chemnitz)

„Variational Regularization with Oversmoothing Penalty Term in Hilbert and Banach Spaces"

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Abstract:
We discuss variational regularization for ill-posed nonlinear problems with focus on an oversmoothing penalty term. This means in our model that the searched-for solution of the considered nonlinear operator equation does not belong to the domain of definition of the penalty functional. In the past years, such variational regularization has been investigated comprehensively in Hilbert scales. The presentation also tries to extend those investigations to different scales in Banach spaces, including convergence rates results, both for Hölder-type smoothness and low order type smoothness.

This talk will partly present joint work with Robert Plato (Siegen) and Peter Mathé (Berlin). Research has been supported by the Deutsche Forschungsgemeinschaft (DFG) under grant HO 1454/13-1

14.45 Uhr: Kaffeejause

15.15 Uhr: Vortrag

vinum cum pane im Anschluss

Otmar Scherzer
Radu Ioan Boţ