

Group Seminar

Computational Methods for PDEs & Inverse Problems and Mathematical Imaging & Transfer Group

Space-time finite element methods for inverse problems

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Tuesday, March 09, 2021, 15:30

online

Abstract

This work is devoted to the initial temperature reconstruction in the backward heat equation using a space-time finite element method on fully unstructured space-time simplicial meshes proposed by Steinbach (2015). Such a severely ill-posed problem is tackled by the standard Tikhonov regularization method. This leads to a related optimal control of parabolic equations in the space-time domain. In this setting, the control is taken as initial condition, whereas the terminal observation data serves as target. The objective becomes a standard terminal observation functional combined with the Tikhonov regularization. The regularization parameter is successively defined by Morozov's discrepancy principle.

online: Zoom

Tue, Mar 9, 2021 3:30 PM (CET)

<https://jku.zoom.us/j/93519648539?pwd=cXhXd1ZkMnFueVdxVC9JTk1ESzJOUT09>

Meeting-ID: 935 1964 8539

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