Talk announcement (ZOOM)

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Local multigrid solvers for adaptive isogeometric analysis in hierarchical spline spaces

We propose local multigrid solvers for adaptively refined isogeometric discretizations using (truncated) hierarchical B-splines. Smoothing is only performed in or near the refinement areas on each level, leading to a computationally efficient solving strategy. The proposed solvers have provably robust convergence with respect to the number of levels and the mesh sizes of the hierarchical discretization space. In this talk we especially go into details of our numerical experiments confirming the theoretical findings. Joint work with Clemens Hofreither and Hendrik Speleers.