Textbook multigrid efficiency and energy extrapolation

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Abstract

The term textbook efficiency was coined by Achi Brandt to describe solvers so efficient that the solution of a system costs less than ten work units, where a work unit is a single multiplication with the stiffness matrix. In the talk we will discuss progress in reaching this ambitious goal with multigrid solvers. Additionally, we will introduce energy extrapolation, a technique to raise the approximation order implicitly by exploiting a nested hierarchy of meshes.

References

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