Exponential Convergence of some hp and Tensor FEM

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Abstract

We present recent results in
analysis and implementation of hp Finite Element Methods (FEM).

We review
a) results by M. Dauge and coworkers on analytic regularity theory,
and
b) novel exponential convergence rate bounds of cG and dG hp-FEM.

Recent results and ongoing research on exponential convergence
of quantized tensor-formatted first order FEM will also be given.

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