

Department of Mathematics

University of Houston

Scientific Computing Seminar

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Optimality of adaptive FEM for controlling nonstandard norms

Thursday, November 14, 2013

3:00 PM- 4:00 PM

Room 646 PGH

Abstract: Over the past decade a well-developed theory of convergence and optimality of standard adaptive finite element methods (AFEM) for controlling energy norms in FEM for elliptic problems has arisen. While corresponding AFEM for controlling nonstandard norms such as L^2 and maximum norms can easily be defined and behave well in practice, there are a number of barriers to extending the energy-norm theory to AFEM for other norms. In this talk I will describe convergence and optimality results for AFEM for controlling L^2 and local energy errors.

This seminar is easily accessible to persons with disabilities. For more information or for assistance, please contact the Mathematics Department at 743-3500.