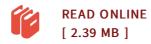# A Comparison of hp-adaptive Strategies for Elliptic Partial Differential Equations

By U. S. Department Of Commerce

CreateSpace Independent Publishing Platform. Paperback. Book Condition: New. This item is printed on demand. Paperback. 216 pages. Dimensions: 11.0in. x 8.5in. x 0.5in.The hp version of the finite element method (hp-FEM) combined with adaptive mesh refinement is a particularly efficient method for solving partial differential equations because it can achieve a convergence rate that is exponential in the number of degrees of freedom. hp-FEM allows for refinement in both the element size, h, and the polynomial degree, p. Like adaptive refinement for the h version of the finite element method, a posteriori error estimates can be used to determine where the mesh needs to be refined, but a single error estimate can not simultaneously determine whether it is better to do the refinement by h or by p. Several strategies for making this determination have been proposed over the years. In this paper we summarize these strategies and present the results of a numerical experiment to study the convergence properties of these strategies. This item ships from La Vergne,TN. Paperback.

READ ONLINE
[2.39 MB]

Reviews

The book is fantastic and great. I have got read through and i am confident that i will planning to read yet again once again in the foreseeable future. I found out this book from my dad and i recommended this publication to discover.
-- Prof. Nicole Zieme

Merely no words and phrases to explain. I was able to comprehended almost everything out of this created e publication. I am quickly will get a satisfaction of studying a created ebook.
-- Cleta Doyle