

A comparison of some a posteriori error estimates for fourth order problems

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A lot of papers and books on a posteriori error estimates analyzing them from the point of view of robustness, guaranteed upper bounds, global efficiency, etc. have appeared recently. At the same time, adaptive finite element methods have acquired the principal position among algorithms for solving differential problems in many physical and technical applications.

In this survey contribution, we present and compare several error estimation procedures for the numerical solution of the biharmonic equation and some further fourth order problems including computational error estimates.