A Posteriori Error Estimation in Terms of Linear Functionals for Elliptic Type Boundary Value Problems

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January 13, 2006

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In this talk we present a uniform scheme for *a posteriori estimation* of computational errors in terms of linear functionals for elliptic type boundary value problem. In the framework of this scheme *easy-to-code* construction of error estimators and error indicators is proposed [1, 2]. Main properties of estimators and indicators obtained are discussed and their effectivity demonstrated in numerical tests.

References

[1] A. Hannukainen and S. Korotov. Techniques for a posteriori error estimation in terms of linear functionals for elliptic type boundary value problems, *Far East J. Appl. Math.* 21, 289–304, 2005.

[2] S. Korotov, P. Neittaanmäki, S. Repin. A posteriori error estimation of goal-oriented quantities by the superconvergence patch recovery. *J. Numer. Math.* 11, 33–59, 2003.