Lourenço Beirão da Veiga, Jarkko Niiranen, Rolf Stenberg: A family of C^0 finite elements for Kirchhoff plates; Helsinki University of Technology, Institute of Mathematics, Research Reports A483 (2006).

Abstract: For the Kirchhoff plates a new finite element method, which is a modification of the one introduced in [25], is presented. This method has the advantages of allowing low order polynomials, and of holding convergence properties which does not deteriorate in the presence of the free boundary conditions. For the method optimal a-priori and a-posteriori error estimates are derived.

AMS subject classifications: 65N30, 74S05, 74K20

Keywords: finite elements, Kirchhoff plate model, free boundary, a-priori error analysis, a-posteriori error analysis

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