

Lourenço Beirão da Veiga, Jarkko Niiranen, Rolf Stenberg: *A family of C^0 finite elements for Kirchhoff plates II: Numerical results*; Helsinki University of Technology, Institute of Mathematics, Research Reports A526 (2007).

Abstract: *A new family of C^0 Kirchhoff plate elements has been introduced by the authors in the theoretical counterpart of the present paper; A family of C^0 finite elements for Kirchhoff plates I: Error analysis [6]. The method presented is a displacement formulation with the deflection and the rotation as unknowns. In the theoretical part, an a-priori and an a-posteriori error analysis has been accomplished for the family. In the present contribution, the authors first recall the main theoretical results, and then focus on the computational aspects of the method, and finally present a set of numerical results on various benchmark computations. These tests verify the optimal convergence rate of the method and illustrate the robustness of the reliable and efficient residual based a-posteriori error estimator for adaptive mesh refinements.*

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

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