

A family of C^0 finite elements for Kirchhoff plates

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ABSTRACT

A new finite element formulation for the Kirchhoff plate model is presented. The method is a displacement method with the deflection and rotation vector as unknowns and is based on ideas stemming from previous work by the authors on stabilized methods for the Reissner-Mindlin and a method to treat a free boundary. Optimal a-priori and a-posteriori error estimates are derived. In addition, results on numerical benchmark tests are reported.

This is joint work with

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