

Mikko Lyly, Jarkko Niiranen, Rolf Stenberg: *Superconvergence and post-processing of MITC plate elements*; Helsinki University of Technology, Institute of Mathematics, Research Reports A474 (2005).

Abstract: *In this paper the MITC finite element methods for the Reissner–Mindlin plate bending problem are considered. A superconvergence result for the deflection is proved. Utilizing this property a local postprocessing is introduced and analyzed. The improved accuracy of the deflection is confirmed by numerical computations.*

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

Keywords: Reissner–Mindlin plates, MITC finite element methods, superconvergence, postprocessing

Correspondence

Mikko.Lyly@csc.fi, Jarkko.Niiranen@tkk.fi, Rolf.Stenberg@tkk.fi

ISBN 951-22-7310-1
ISSN 0784-3143

Helsinki University of Technology
Department of Engineering Physics and Mathematics
Institute of Mathematics
P.O. Box 1100, 02015 HUT, Finland
email:math@hut.fi <http://www.math.hut.fi/>