

Solvability of geometrically nonlinear boundary-value problems for the Timoshenko-type anisotropic shells with rigidly clamped edges

Timergaliev S.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

In the nonlinear theory of shells all known existence theorems are based on the Kirchhoff-Love model. We prove a new existence theorem using the displacement model proposed by S. P. Timoshenko. © 2011 Allerton Press, Inc.

<http://dx.doi.org/10.3103/S1066369X11080081>

Keywords

boundary value problem, equilibrium equations system, existence theorem, generalized displacements, generalized problem solution, integral equations, integral representations, operator, Sobolev spaces, Timoshenko-type shell