Solvability of one nonlinear boundary-value problem for a system of differential equations of the theory of shallow Timoshenko-type shells

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Abstract

© Siberian Federal University. All rights reserved.Solvability of a system of nonlinear second order partial differential equations with given initial conditions is considered in the paper. Reduction of the initial system of equations to one nonlinear operator equation is used to study the problem. The solvability is established with the use of the principle of contracting mappings.

Keywords

Equilibrium equations, Existence theorem, Integral representations, System of nonlinear differential equations