

# **On the existence of solutions of a nonlinear boundary value problem for the system of partial differential equations of the theory of Timoshenko type shallow shells with free edges**

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## **Abstract**

© 2015, Pleiades Publishing, Ltd. We study the solvability of a system of nonlinear second-order partial differential equations with given boundary conditions. The method is to reduce the original system to a single nonlinear differential equation, whose solvability is then proved with the use of the contraction mapping principle.

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