

A Numerical Solution for the Timoshenko Nonlinear System

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We consider the nonlinear system of equations describing the shell deformation. The system of equations is reduced to one nonlinear integro-differential equation. Using the projection method the infinite-dimensional task is replaced by finite-dimensional one. Existence of generalized solution and convergence of Galerkin method are proved. Resulting system of cubic equations is solved by iterative method. Parallel computing system is used for getting numerical solution.

References

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