On a numerical realization for a Timoshenko type one nonlinear beam equation

Archil Papukashvili

Iv. Javakhishvili Tbilisi State University I.Vekua Institute of Applied Mathematics

archil.papukashvili@tsu.ge

The presented work is direct continuation of articles [1]-[4], which consider the construction of algorithms and corresponding numerical computations for the approximate solution of nonlinear integro-differential equations Kirchhoff and Timoshenko types. In particular consider an initial-boundary value problem for the J.Ball integro-differential equation, which describes the dynamic state of a beam (see, [5]). The solution is approximated by using the Galerkin method, symmetrical stabile difference scheme and the Jacobi iteration method. The algorithm has been approved on tests. The results of recounts are represented in tables and graphics.

References

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