

Construction and Research of Approximate Solutions of Some Non-Linear Integro-Differential Equations

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Abstract

The paper reviews the approximate solution of the following three tasks:

1. Nonlinear boundary problem for the Kirchhoff type static beam.
2. Dynamic beam problem for nonlinear J. Ball equation.
3. The construction and research of variation-difference scheme for Kirchhoff two-dimensional nonlinear dynamic equation.

The convergence of approximate solutions with the relevant computer experiments have been conducted and studied.