

Numerical Methods of Solution of Boundary-value Problem for Differential-algebraic Equations of the Second Order

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Abstract: In this paper the numerical methods of solution of boundary-value problem for differential-algebraic equations of the second order are considered. We found conditions fulfillment of which ensures stability and convergence to exact solution of proposed algorithms. The results of numerical calculations are given.

Keywords: linear differential algebraic systems, matrix polynomial, boundary-value problem, matrix sweep method.

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