

عنوان مقاله:

Numerical method for solving optimal control problem of the linear differential systems with inequality constraints

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خلاصه مقاله:

In this paper, an efficient method for solving optimal control problems of the linear differential systems with inequality constraint is proposed. By using new adjustment of hat basis functions and their operational matrices of integration, optimal control problem is reduced to an optimization problem. Also, the error analysis of the proposed method is investigated and it is proved that the order of convergence is $O(h^4)$. Finally, numerical examples affirm the efficiency of the proposed method.

کلمات کلیدی:

Adjustment of hat basis functions, Optimal control, Differential systems, Inequality constraint, Error analysis

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