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\begin{center}
{\bf Algorithm for solving terminal control problems for a linear dynamical
discrete system} \\
Tyulyukin Vladimir A.
\end{center}

The problems of terminal control, in which the probabilistic characteristics
of the undetermined coordinates and of the control parameters are assumed to be
known, have been thoroughly investigated; the numerical methods developed for
their solution are intended basically for systems with small dimension. However,
in the control systems of the motion of objects with a terminal functional, the
information on the probabilistic characteristics of the a priori undetermined
initial state of the multidimensional system is frequently missing: here the
selection of the control parameter is restricted by the geometric constraint.

In this work the optimization problem of the terminal state of a linear
multidimensional discrete system with a nondifferentiable performance functional
is considered, in which die restrictions on the undetermined initial state of the
system and on the control parameter have the form of convex, closed, and bounded
polyhedra (with a finite number of vertices) in the corresponding Euclidean
spaces. The recursive numerical algorithm which reduces the initial multistep
problem to solving a sequence of direct and inverse one-step optimization problems
is offered in order to solve this problem.

The algorithm is implemented as a complex of programs for the personal
computer in the Borland Delphi. The results obtained in the work can be used for
the elaboration of automatic control systems of moving objects.
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