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THE PROGRAM ITERATION METHOD IN A GAME PROBLEM OF GUIDANCE

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A variant of the program iteration method for solving a game problem of guidance to a target set under state constraints is considered. We study a procedure for the construction of a positional absorption set corresponding to N.N. Krasovskii and A.I. Subbotin's theorem of alternatives, which underlies the modern theory of differential games. Important results on the alternative solvability of differential games for systems with distributed parameters and aftereffect belong to Yu.S. Osipov. These results are an essential complement to the ideas related to the alternative for dynamic problems of infinite-dimensional nature. The solution method from the present paper is intended for the "finite-dimensional" case of a differential game of approach–evasion.

Keywords: differential game, generalized program control, iteration method.

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