

**On the choice of switching instances in a control problem with restriction on the number of corrections**

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**ABSTRACT**

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The problem of avoidance of a goal set at a given moment of time is considered. A peculiarity of the setting is the fact that the second player (evaser) may form only piece-wise constant control with the number of switchings not more than  $k$ ,  $k \geq 1$ . The formalization of such a problem was suggested by A.G.Chentsov. It based on the programmed iterations method [1]–[3] elaborated for constructing the largest stable bridge. In particular, it was shown that one obtain, as a result of  $k$ -th iterations, the set of positions for which the second player can solve the problem of avoidance, making not more than  $k$  switchings. In this case, the solving procedure of the second player consists of the three components:

- 1) positional strategy which form constant controls on some time interval;
- 2) number of switchings;
- 3) correction rule which fixes the event when the trajectory leaves the  $k$ -th iteration, and assigns the next switching instance.

In the present work, an algorithm is supposed that constructs step-wise motions corresponding to the solving procedure of the player-evaser.

**References**

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