An evasion differential game described by an infinite system of 2-systems of second order.

ABSTRACT

We study a differential game of many pursuers described by infinite systems of second order ordinary differential equations. Controls of players are subjected to geometric constraints. Differential game is considered in Hilbert spaces. We say that evasion is possible if $\|z_i(t)\|r+1 + \|\dot{z}_i(t)\|r \neq 0$ for all $i = 1, ...,m$, and $t > 0$; m is the number of pursuers. We proved one theorem on evasion. Moreover, we constructed explicitly a control of the evader.

Keyword: Differential game; Control; Strategy; Evasion.