

A multiperson pursuit problem on a closed convex set in Hilbert space

ABSTRACT

A differential game of pursuit of an evader by a finite number of pursuers on a closed convex set in l^2 -space is studied. The game is described by simple differential equations and players' controls obeyed the integral constraints. The game is deemed to be completed if exact contact of a pursuer with the evader is occurred. It is shown that even if the resources for controls of an individual pursuer is less than that of the evader, the completion of game is still possible.

Keyword: Multiperson pursuit problem; Closed convex set; Hilbert space