

A GAME PROBLEM ON A CLOSED CONVEX SET*G. I. Ibragimov*

The movements of Pursuer P and Evader E in \mathbb{R}^n are described by the equations $P : \dot{x} = a(t)u$ and $E : \dot{y} = a(t)v$, where u and v are control parameters of P and E . A closed convex subset S of \mathbb{R}^n is given. The players P and E must not leave S . Integral restrictions are imposed on the controls of the players. For arbitrary initial locations $x_0, y_0 \in S$ of the players, the optimal time of pursuit is found and optimal strategies for the players are constructed.

Key words and phrases: differential game, optimal time of pursuit, optimal strategy, possibility of evasion.

Ibragimov Gafurzhan Ismailovich

University of World Economics and Diplomacy,
700137 Tashkent, Uzbekistan.
E-mail: gafurjan@uwed.freenet.uz

Received

September 21, 2000

Translated into English:

Siberian Advances in Mathematics, V. 12, N 3, 16–31 (2002).