

ON A PURSUIT-EVASION PROBLEM UNDER A LINEAR CHANGE OF THE PURSUER RESOURCE

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We study a pursuit-evasion problem in the case when an integral constraint is imposed on the pursuer control class which is a generalization of integral as well as geometric constraints and only a geometric constraint is imposed on the evader control class. We prove the theorem of alternative. The optimal pursuit problem is solved by a generalized parallel pursuit strategy, and lower bounds for the distance between the pursuer and the evader are established in the pursuit problem.

Key words and phrases: differential game, pursuit problem, evasion problem, Π -strategy, capture, deviations.

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