An application of Pontryagin's maximum principle in a linear quadratic differential game.

ABSTRACT

This paper deals with a class of two person zero-sum linear quadratic differential games, where the control functions for both players are subject to integral constraints. The duration of game is fixed. We obtain the necessary conditions of the Maximum Principle and also optimal control by using method of Pontryagin’s Maximum Principle. Finally, we discuss an example.

Keyword: Linear quadratic differential games; Optimal control; Pontryagin ’s Maximum Principle; Payoff functional.