Optimal control using Pontryagins maximum principle in a linear quadratic differential game.

ABSTRACT

This paper deals with a class of two person zero-sum linear qu adratic differential games, where the control functions for both players subject to integral constraints. Also the necessary conditions of the Maximum Principle are studied. Main objective in this work is to obtain optimal control by using method of Pontryagin's Maximum Principle. This method for a time-varying linear quadratic differential game is described. Finally, we discuss about an example.

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