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Abstracts of Short Communications and Posters

Section:

17. Control Theory and Optimization

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On an Optimization of parameters in Differential Games
Differential games, described by systems of ordinary differential equations is considered. Pursuit and evasion problems are two main problems in the theory of differential games. By investigation of pursuit problem the important part of it is to finding the finite time of pursuit ending and its optimization (more exactly minimization). Many papers was devoted to the obtaining of necessary and sufficient conditions of pursuit time's optimality. We are posed and considered the problem of parameters' optimization in evasion (avoiding) games. Sufficient conditions for optimality of such evasion parameters as subspace of orthogonal complement of terminal set, its dimension and distance to terminal set are obtained. Further an algorithm of optimal parameters calculation is pointed and well-known examples are considered.