

Tur, "Stable cooperation in linear-quadratic differential games with nontransferable payoffs," *"Stability and Control Processes" in Memory of V.I. Zubov (SCP), 2015 International Conference*, St. Petersburg, 2015, pp. 265-268. doi: 10.1109/SCP.2015.7342110

Abstract: The problem of strategically supported cooperation in linear-quadratic differential games is considered. It is assumed, that the cooperative agreement is reached and each player gets his payoff according to the payoff distribution procedure [5]. Following [3], to punish those who violate this agreement, the special game, which differs from initial only by payoffs of players on cooperative trajectory is constructed. It is shown that in the new game there exists an ε -equilibrium with payoffs of players equal to corresponding payoffs of players in cooperative solution of initial game.

keywords: {differential games;linear quadratic control;cooperative trajectory;linear-quadratic differential games;nontransferable payoffs;payoff distribution procedure;stable cooperation;strategically supported cooperation;Games;Linear matrix inequalities;Nash equilibrium;Optimal control;Symmetric matrices;Trajectory},

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