

ON EXTREMAL SHIFT STRATEGIES IN DELAYED SYSTEMS

N. Yu. Lukoyanov, A. R. Plaksin

We consider a differential game in which the motion of a conflict-controlled dynamical system is described by an equation with delay, the initial condition is determined by a piecewise continuous function, and the performance index assesses the history of the motion realized by the terminal time and involves an integral estimate for the realizations of the players' controls. The optimality of the players' positional strategies constructed by the method of extremal shift to an accompanying point is proved. The main result of the paper states that the accompanying point is chosen from a finite-dimensional neighborhood of the current state of the system.

Keywords: positional differential game, delayed system, extremal shift.

MSC: 49J25, 49N70, 49N35

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Anton Romanovich Plaksin, Krasovskii Institute of Mathematics and Mechanics of the Ural Branch of the Russian Academy of Sciences, Yekaterinburg, 620108 Russia; Ural Federal University, Yekaterinburg, 620083 Russia, e-mail: a.r.plaksin@gmail.com .

Nikolai Yur'evich Lukoyanov, Dr. Phys.-Math. Sci., Corresponding Member of RAS, Krasovskii Institute of Mathematics and Mechanics of Ural Branch of the Russian Academy of Sciences, Yekaterinburg, 620108 Russia; Ural Federal University, Yekaterinburg, 620083 Russia, e-mail: nyul@imm.uran.ru .

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