

Review report on master thesis of

Kostetskaya Alexandra Gennadievna

«Admissible Forms of Cooperation in Multistage Games».

The master thesis of Ms.Kostetskaya is devoted to the study of the influence on the mental system of players which receive signals from outside about the possibility of cooperation. In the thesis two different game-theoretic models are considered: the first is the exchange of gifts between players, the second is the modified prisoner's dilemma. The first game-theoretic model was taken from the article Compte, O., Postlewaite, A. 2015, "Plausible Cooperation" (from university of Pennsylvania). Kostetskaya A. studied the article and related literature, found new restrictions on the parameter of the model (cost of the effort of L in the payoff matrix), different from those described in the article. She considered also the game with an increased number of moods of players from two to three (Upset, Normal, Between), in the mentioned article only two moods of players (Upset, Normal) were considered. This requires the change of the previous result by finding new restrictions on parameter L. The second game was constructed based on the classic prisoner's dilemma game. However, in the game, the presence of private signals of players was added. For this problem, Kostetskaya A. found the critical probability for the truthfulness of a signal for further cooperation. For each of the game-theoretic models, a simulation of the game in the C# programming language in Visual Studio is performed.

Unfortunately, I have not seen Ms.Kostetskaya starting from September 2018 till the beginning of May 2019. The prisoner's dilemma part was added during last month. In my opinion, she could do a much better job.

My evaluation is "Good"

Supervisor,

Professor Leon Petrosyan

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