A. I. Pyanykh¹,

MULTISTAGE BIDDING MODEL WITH BARGAINING

This paper is concerned with a modification of a discrete multistage bidding model. Bidding takes place between two players for one unit of a risky asset. The first player (an insider) knows the real price of the asset, while the second player knows only a probability distribution over the price. At each stage of the bidding players make integral bids. The higher bid wins and one unit of the asset is transacted to the winning player, wherein the price of the transaction equals to a convex combination of bids. This model is reduced to a repeated game with incomplete information. The solution for the infinite game is found.

Keywords: repeated games, asymmetric information, bargaining.

 $^{^1\}mathrm{CS}$ MSU, PhD student, e–mail: artem.pyanykh@gmail.com