ABSTRACT

The theme "Continuous approximation of Kelly criterion for creating investment portfolio ".

Diploma workincludes 121p., 37fig., 12tab., 2 appendixesand20 sources.

Object of research – stocks, options and valuable papers.

The purpose of research is to form investment portfolio using Kelly criterion.

The problem of choosing the correct optimal criterion is extremely important because portfolio's return depends on criterion which was used in order to form it. Commonly used Markowitz criterion has a constraint on distribution of portfolio returns – it has to be normal. At the same time Kelly criterion does not depend on probability distribution at all. In this paper was presented theoretical and practical explanation of Kelly and Markowitz criterion, method of portfolio performance monitoring.

This paper presents the results of solving these problems on real data. Mathematical and financial analyses were done, and from these point of view advantages and disadvantages of the methods were allowed. The algorithms were developed and can be used for calculating optimal Kelly portfolio.

PORTFOLIO, VALUABLE PAPERS , KELLY CRITERION,MARKOWITZ CRITERION, STOCK MARKET, INVESTMENT.