Title: Almost stochastic dominance
Author: Adam Štefánik
Department: Probability and Mathematical Statistics
Supervisor: RNDr. Ing. Miloš Kopa, PhD.
Department of Probability and Mathematical Statistics, MFF UK

Abstract: In the presented work we study the almost stochastic dominance and it's properties. Almost stochastic dominance is a relaxation of stochastic dominance. Almost stochastic dominance also deals with paradox situations occurring in case of stochastic dominance. This is a situation when stochastic dominance determines indifferent relationship between two portfolios, but in fact almost all investors can choose the better one. The original almost stochastic dominance presented by Leshno and Levy (2002) is computationally expensive. Lizyayev and Ruszczyński (2012) suggested an alternative approach. This work introduces both approaches. The most interesting part of this work is a search for efficient portfolio with respect to the almost stochastic dominance by the simple linear programming. Lizyayev and Ruszczyński (2012) approach is applied to Kopa and Chovanec (2008) quantile approach for portfolio efficiency testing with respect to second order stochastic dominance.

Keywords: almost stochastic dominance, efficiency, CVaR