Title: Numerical study on simultaneous equations

Author: Vojtěch Šaroch

Department: Department of Probability and Mathematical Statistics

Supervisor: doc. RNDr. Petr Lachout, CSc.

Abstract: In this thesis we deal with the simultaneous equation model. In the first chapter we introduce theoretical aspect of this problem, especially estimation procedures and their properties. We mention issues of an identification and an inconsistency of OLS-estimates for simultaneous modeling. In the second chapter we introduce theory of estimation, especially we will focus on the interval estimation and precision. We mention empirical approach too. In the third chapter we perform a numerical study on the simple macroeconomic model of generated dates. We are interested in properties of interval estimations of parameters, the convergence rate, difference between the empirical and theoretical estimation etc.

Keywords: simultaneous equations model, interval estimation, empirical estimation