

This bachelor thesis deals with linear and nonlinear autoregressive models for time series from economics and finance. It consists of theoretical and practical part. In theoretical part, the reader acquaints with terms connected to random processes; then autoregressive and threshold autoregressive time series are introduced, their general properties are derived, possible ways of forecasting are described and ways of parameters estimation are presented. Furthermore, test for threshold autoregression is introduced. The practical part is divided into simulation study, where the quality of estimations and the power of the test is examined on simulated time series, and into application on real data, where the acquired findings are utilized on time series of share prices of the company ČEZ.