Abstract:

The thesis studies nonlinear nonparametric models used in time series analysis. It gives basic introduction to the time series and states different nonlinear nonparametric models including their estimates. Special attention is paid to three of them, CHARN, FAR and AFAR model. Their properties and estimation techniques are presented. We also show techniques that select values of the parameters used further in estimation methods. The properties of time series models are investigated in simulation and real data studies.