## Efficiency of Some Algorithms for Prediction in Finite Stationary Time Series

## Pavel Ranocha

Abstract: Important characteristics of any algorithm are its complexity and speed of real calculations. From this point of view we analyze some algorithms for prediction in finite stationary time series. First, we review results developed by Bondon [P. Bondon: Recursive relations for multistep prediction of a stationary time series. J. Time Ser. Anal. 22 (2001)] and then we derive complexities of Levinson and innovations algorithm. It is shown that time needed for real calculations of prediction is proportional to theoretical complexity of the algorithm. Some practical recommendations for selection of the best algorithm are given.

Keywords: Stationary time series; multistep prediction; Levinson's algorithm; innovations algorithm;

AMS Subject Classification: 60G25;