

On Unequally Spaced AR(1) Process.

Jan Šindelář; Jiří Knížek

Abstract: Discrete autoregressive process of the first order is considered. The process is observed at unequally spaced time instants. Both least squares estimate and maximum likelihood estimate of the autocorrelation coefficient are analyzed. We show some dangers related with the estimates when the true value of the autocorrelation coefficient is small. Monte-Carlo method is used to illustrate the problems.

Keywords: AR(1) process; unequally spaced; autocorrelation coefficient; least squares estimate; maximum likelihood estimate;

AMS Subject Classification: 60G10; 62M10;