Linear Approximations to Some Non-linear AR(1) Processes.

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Abstract: Some methods for approximating non-linear AR(1) processes by classical linear AR(1) models are proposed. The quality of approximation is studied in special non-linear AR(1) models by means of comparisons of quality of extrapolation and interpolation in the original models and in their approximations. It is assumed that the white noise has either rectangular or exponential distribution.

Keywords:

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