

**Štulajter, F.**

**Mean squared errors of prediction by kriging in linear models with  $AR(1)$  errors.** (English)

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Kriging is used as a name for the theory of prediction in random processes (random fields) with an unknown mean value and, possibly, with an unknown covariance function.

The main aim of this paper is to derive an approximate expression for the mean square error of a predictor with estimated parameters which is based on a finite observation of a stochastic process following a linear regression model with  $AR(1)$  errors. In this case the dependence of the covariance function on unknown parameters is nonlinear.

**MSC:**

[62M20](#) Inference from stochastic processes and prediction

[62M10](#) Time series, auto-correlation, regression, etc. in statistics (GARCH)

**Keywords:**

[kriging](#); [prediction](#); [mean square error](#); [linear regression](#); [AR\(1\) errors](#)

**Full Text:** [EuDML](#) [EMIS](#)