Linear Regression with Stationary Errors: the R Package slm

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Abstract This paper introduces the R package slm, which stands for Stationary Linear Models. The package contains a set of statistical procedures for linear regression in the general context where the error process is strictly stationary with a short memory. We work in the setting of Hannan (1973), who proved the asymptotic normality of the (normalized) least squares estimators (LSE) under very mild conditions on the error process. We propose different ways to estimate the asymptotic covariance matrix of the LSE and then to correct the type I error rates of the usual tests on the parameters (as well as confidence intervals). The procedures are evaluated through different sets of simulations.

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