Ann. Inst. Statist. Math.
Vol. 56, No. 2, 251–264 (2004)

ASYMPTOTICS OF ESTIMATES IN CONSTRAINED NONLINEAR REGRESSION WITH LONG-RANGE DEPENDENT INNOVATIONS

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(Received April 30, 2002; revised March 10, 2003)

Abstract. The purpose of this paper is to investigate the asymptotic properties of the least squares estimates (L_2-estimates) and the least absolute deviation estimates (L_1-estimates) of the parameters of a nonlinear regression model subject to a set of equality and inequality restrictions, which has a long-range dependent stationary process as its stochastic errors. Then we will compare the asymptotic relative efficiencies of the above estimators.

Key words and phrases: Asymptotic efficient, asymptotic property, least absolute deviation estimation, least squares estimation, long-range dependence, equality and inequality constraints, nonlinear regression.