CORRECTION

RESIDUAL EMPIRICAL PROCESSES FOR LONG AND SHORT MEMORY TIME SERIES


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It has been brought to our attention that the limit distribution of Corollary 3.1 on page 2460 of [1] was incorrect. Corollary 3.1 and Remark 3.1 of [1] have to be modified as follows. These changes do not affect the other results in [1].

COROLLARY 3.1. If Assumptions 2.1 and 3.1 hold and \( H \in (1/2, 1) \), then

\[
\left[ \sigma_n \sup_x F'(x) \right]^{-1} \sup_x |\hat{K}_n(x)| = o_p(1).
\]

REMARK 3.1. This corollary reflects the effects of the slower convergence rate of the estimated parameter \( \hat{\alpha}_0n \). This fact serves as a reminiscence of the classical Kolmogorov–Smirnov statistics problem when the underlying parameters are estimated; see Durbin (1976). When \( \alpha_0 \) is known, the test statistic (1.5) is still valid, however. As pointed out by the reviewer, when \( F = F(x, \theta) \) involves an unknown parameter \( \theta \), one should consider \( \hat{K}_n \) with \( F(x) \) being replaced by \( F(x, \hat{\theta}_n) \). When \( H \leq 1/2 \), it can be shown that the limit distribution of the statistic exists by means of the result of Wu (2003). The closed form of such a limit distribution is rather complicated and does not possess a simple expression, however, and is not presented here.

REFERENCES


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