

On consistency of least square estimator in models sampled at random times driven by long memory noise

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Abstract

In this article we prove strong consistency for the least squares estimator in a random sampled linear regression model with long memory noise and an independent set of random times given by Jittered and renewal process sampling. Additionally we show how to deal with the number of observations needed to reach the time $T = 1$. A simulation study is provided to illustrate the behavior of the different terms involved and the performance of the estimator under different values of the Hurst parameter H .