

1108-60-8

Michael L Stein* (stein@galton.uchicago.edu), 5734 University Ave., Department of Statistics, Chicago, IL 60637. *Is this long range dependence?*

A standard definition of a long range dependent stationary process is that it has an unbounded spectral density in a neighborhood of the origin. Another way to think about a long range dependent process is in terms of observations far from a prediction time having a nontrivial impact on the prediction. This talk describes a model with a bounded spectrum for which, under a certain asymptotic framework, distant observations nonnegligibly improve optimal predictions beyond what can be obtained from even a large number of observations nearer to the prediction time. Some implications of this result for practical modeling of real-world processes will be discussed. (Received October 16, 2014)