J O U R N A L C L U B

R/S Analysis and the Hurst Exponent:

A Measure of Dynamics in Natural Systems

by

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ABSTRACT

Prediction of natural phenomena has always been a well-pondered problem. Phenomenological rends are of interest to anyone who depends on (or merely studies) the world around him. D. E. Hurst and Benoit Mandelbrot studied data from diverse systems such as river output, tree growth, sediment deposits, stock fluctuations, and sunspots. These systems show wonderful time correlations which can be analyzed by a technique called R/S, now a standard practice in some fields. This technique produces a parameter known as the Hurst exponent, which is a measure of the way in which a data series varies in time. Systems with the same statistical measures can have very different dynamics, and the Hurst exponent attaches a useful number to those systems. This number may be useful in any study of data series.

Friday, November 16
Room 401, IARC Bldg
3:45 pm