

Generalized wavelet entropy for self-affine signals

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Self-affine signals are ubiquitous in natural phenomena, ranging from big rivers flows to Internet traffic. These signals are characterized by an scaling exponent, known also as Hurst exponent.

Based on the well known scaling properties of the wavelet coefficients which can be related to the Hurst exponent, it is show that the behavior of the wavelet entropy changes dramatically on depending on the correlation properties of the signal.