

# Denoising with wavelets method in choatic time series: application in climatology, energy and finance

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# ABSTRACT

In this paper, in order to de-noise a chaotic signal, we compare the time-frequency deconvolution method with the wavelets method. We apply our results on different dynamical systems and show the capability of wavelets method to reconstruct the attractor of a chaotic time series.

Then, we de-noise different data sets in order to re-built their attractor using the wavelets method. The applications concern temperatures and wind fluctuations, electricity spot prices and financial data sets.