Data-driven wavelet block thresholding for statistical signal and image processing

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Wavelet block thresholding is a popular procedure of adaptation that has allowed the statisticians to establish an impressive body of asymptotic mathematical results and develop softwares for solving practical problems. However, there are presently no R packages which provide a generic framework for this approach. We propose a data-driven block thresholding method which is easy to implement and fast. Numerical illustrations are provided to illustrate the performances of the procedure on a variety of standard image and signal processing tasks. This is an ongoing joint work with Christophe Chesneau.