

**Wavelet Shrinkage for Correlated Data and Inverse Problems: Adaptive Results**

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Abstract:

Johnstone and Silverman (1997) described a level-dependent thresholding method for extracting signals from correlated noise. The thresholds were chosen to minimize a data based unbiased risk criterion. Here we show that in certain asymptotic models encompassing short and long range dependence, these methods are simultaneously asymptotically minimax up to constants over a broad range of Besov classes. We indicate the extension of the methods and results to a class of linear inverse problems possessing a wavelet vaguelette decomposition.