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(54) Title: IMPROVED ESTIMATOR FOR RECOVERING HIGH FREQUENCY COMPONENTS FROM COMPRESSED IMAGE DATA

(57) Abstract

A method of compressing and decompressing digitally encoded data resulting in improved compression ratios is disclosed. The method utilizes the wavelet transform and the frequency response of human perception to determine which transform coefficients are important for perception. The method estimates the wavelet transform's discarded high frequency coefficients. At each level of the inverse transform, the method estimates the missing high frequency coefficients based on the complete set of low frequency coefficients and the filter coefficients. The resulting inverse wavelet transform is a high quality reproduction of the original image.

