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Myung-Sin Song* (msong@siue.edu), Southern Illinois University Edwardsville, Department of Mathematics and Statistics, Campus Box 1653, Edwardsville, IL 62026. Entropy Encoding using Karhunen-Loève transform in Wavelet Image Compression.

In wavelet image compression two types of compressions can be done. One is lossy compression and the other lossless compression. The lossy compression method is by means of thresholding or quantization and the lossless compression method is by entropy encoding. The two steps are applied after the image is decomposed using forward wavelet transform. Entropy encoding enables to represent an image in a more efficient way with smallest memory for storage or transmission. In this talk, how entropy encoding using Karhunen-Loève transform works will be discussed. (Received September 13, 2007)