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Yang Wang* (ywang@math.msu.edu), Department of Mathematics, Michigan State University, East Lansing, MI 48824-1027. *Quantization for Finite Frame Expansions and the White Noise Hypothesis.*

In digital communication and other applications quantizations have to be performed to convert an analog signal into digital form. Quantizations induce errors in the reconstruction. It is important that we understand how the errors behave. When frames are used to represent a signal, the inherent redundancy in a frame expansion further complicates the behaviors of quantization errors. In this talk we examine quantization errors in the frame expansion setting. In particular we take a closer look at the so-called White Noise Hypothesis, which asserts the quantization errors in different channels are independent and identically distributed. (Received September 20, 2007)