

1067-Y5-1826 **Helmut Knaust*** (hknaust@utep.edu), Department of Mathematical Sciences, UTEP, El Paso, TX 79968. *Lloyd-Max Quantization Schemes.*

Quantization is used in image processing to achieve lossy compression by reducing the range of values occurring in a signal. Quantization is an integral part of both the JPEG and JPEG2000 standards. Lloyd-Max quantization algorithms in particular are designed to minimize the mean square error (or another suitable target function) during the quantization process. We will give a short introduction to Lloyd-Max quantization and its implementation in image processing. This open-ended topic is suitable for student projects in an undergraduate wavelets, signal processing, modeling, or applied probability course. (Received September 21, 2010)