1154-37-1355   **Mrinal K Roychowdhury*** (`mrinal.roychowdhury@utrgv.edu`), 1201 West University Drive, Edinburg, TX 78539. *Optimal Quantization.*

The basic goal of quantization for probability distribution is to reduce the number of values, which is typically uncountable, describing a probability distribution to some finite set and thus approximation of a continuous probability distribution by a discrete distribution. It has broad application in signal processing, and data compression. Two main goals have been: finding the exact configuration of a so-called n-optimal set' which corresponds to the support of the quantized version of the distribution, and estimating the rate, called quantization dimension, at which some specified measure of the error goes to zero as n goes to infinity. Quantization dimension is also connected with other dimensions of dynamical systems, such as Hausdorff, packing, and box counting dimensions. I will talk about it. (Received September 15, 2019)