

## **Source coding bounds using Quantizer Reproduction Levels**

### **Abstract**

Given reasonably chosen fixed sets of reproduction letters and/or their probabilities, the authors define new rate-distortion functions which are coding bounds under these alphabet constraints. Calculations are made of these functions for the Gaussian and Laplacian sources and the squared-error distortion measure and find that performance near the rate-distortion bound is achievable using a reproduction alphabet consisting of a small number of optimum quantizer levels.