

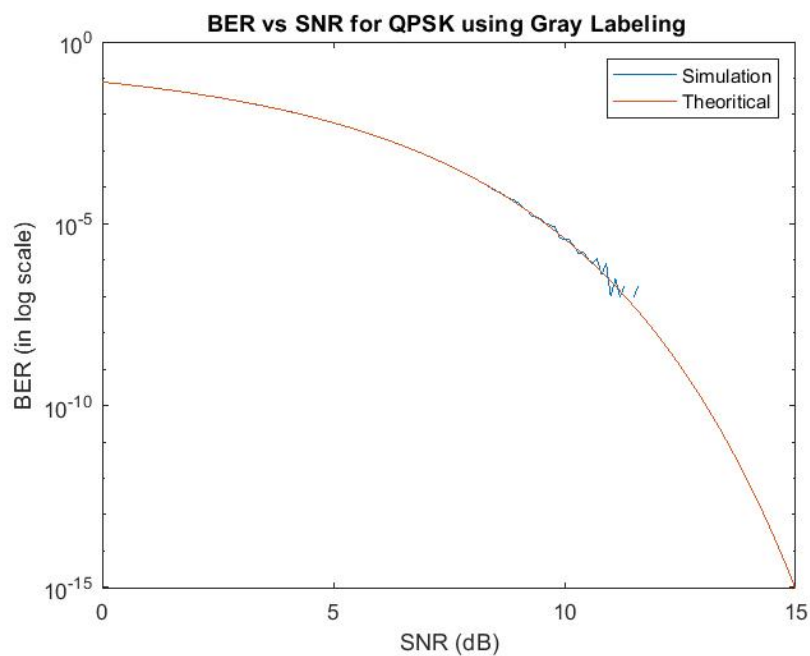
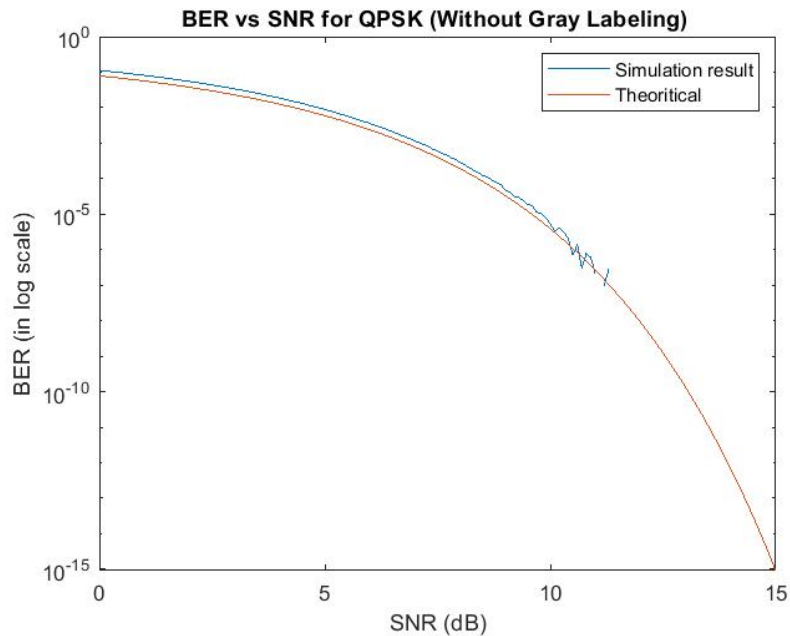
Communications Lab: Experiment 4

Bit error rate of Quadrature Phase Shift Keying (QPSK)
(with and without Gray labelling) in Additive White
Gaussian Noise (AWGN)

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Results:



Form the above results we can conclude for a specific value of Signal to Noise Ratio, QPSK using gray labelling gives lower Bit Error Rate than QPSK without using gray labelling.

This is as expected because by using gray labeling, the bits in adjacent quadrants vary just by one bit, hence when using distance rule for demodulation we will get a lower BER value for a given SNR.