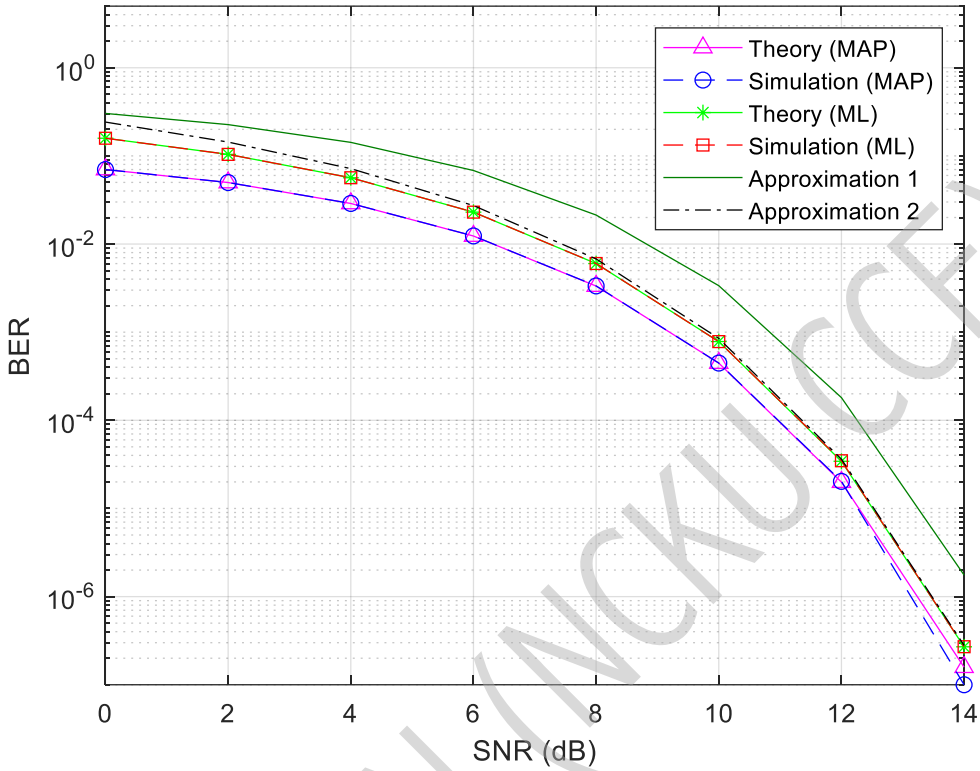
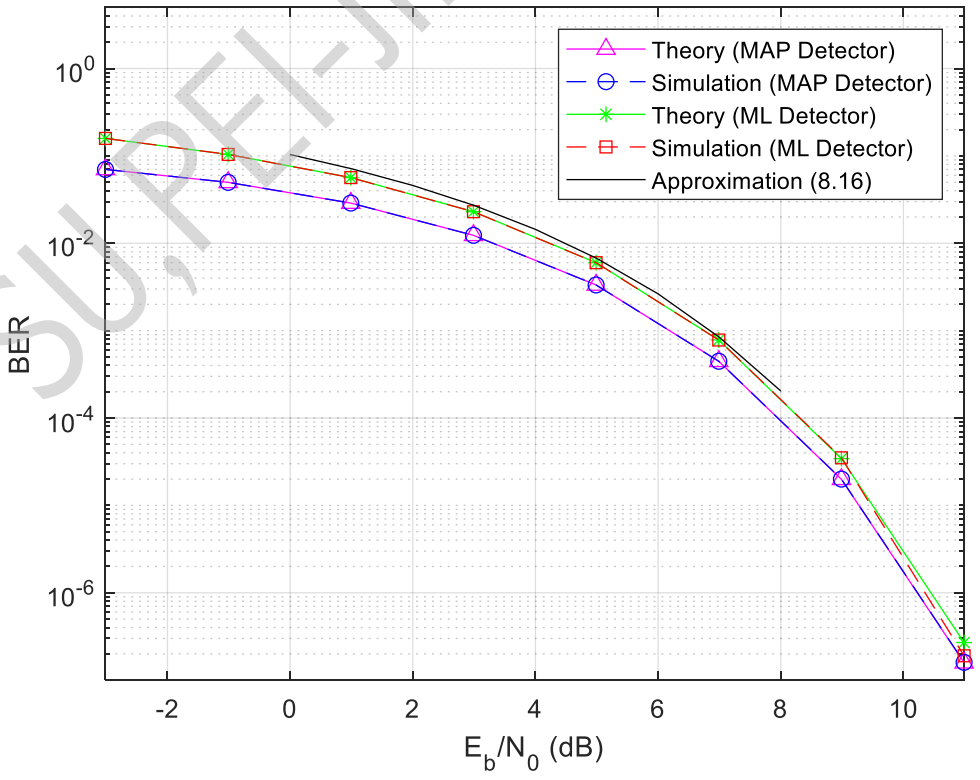
Non-equal probability of the transmitted bits

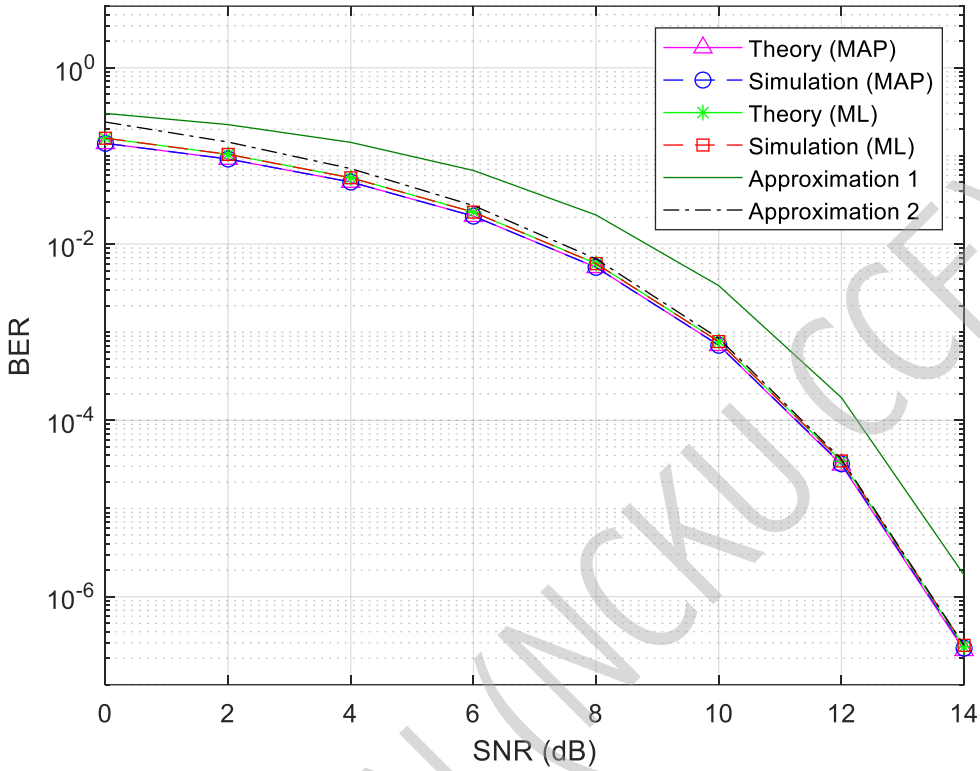
$P(1) = P(s = \sqrt{2}) = P_1 = 0.1$ and $P(0) = P(s = -\sqrt{2}) = 1 - P_1 = 0.9$

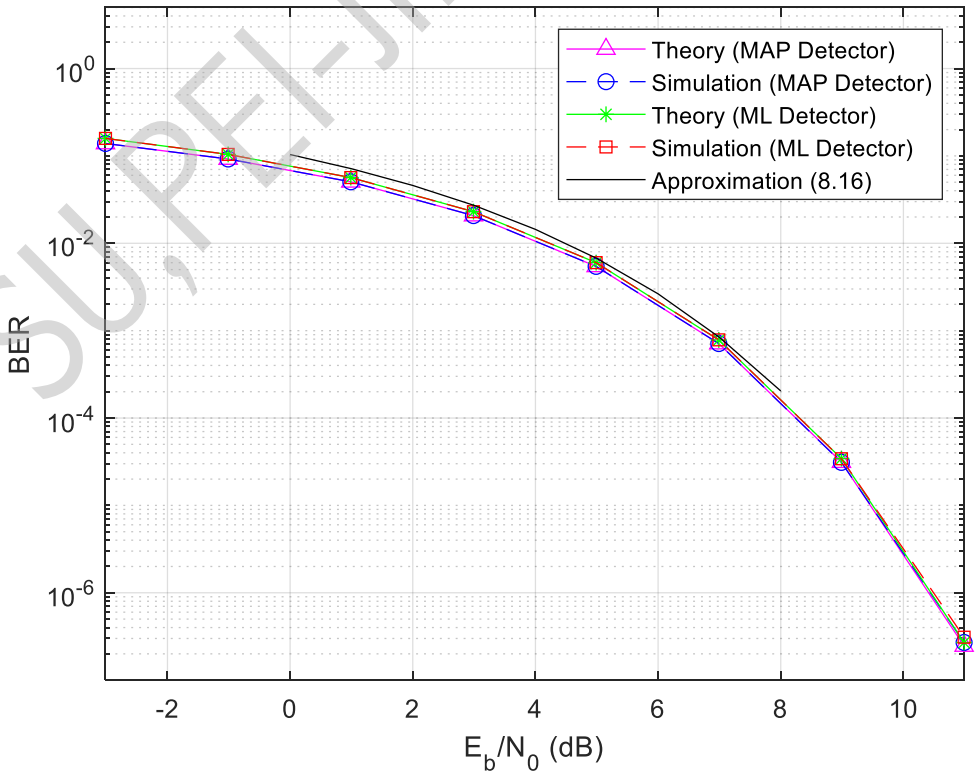




Non-equal probability of the transmitted bits

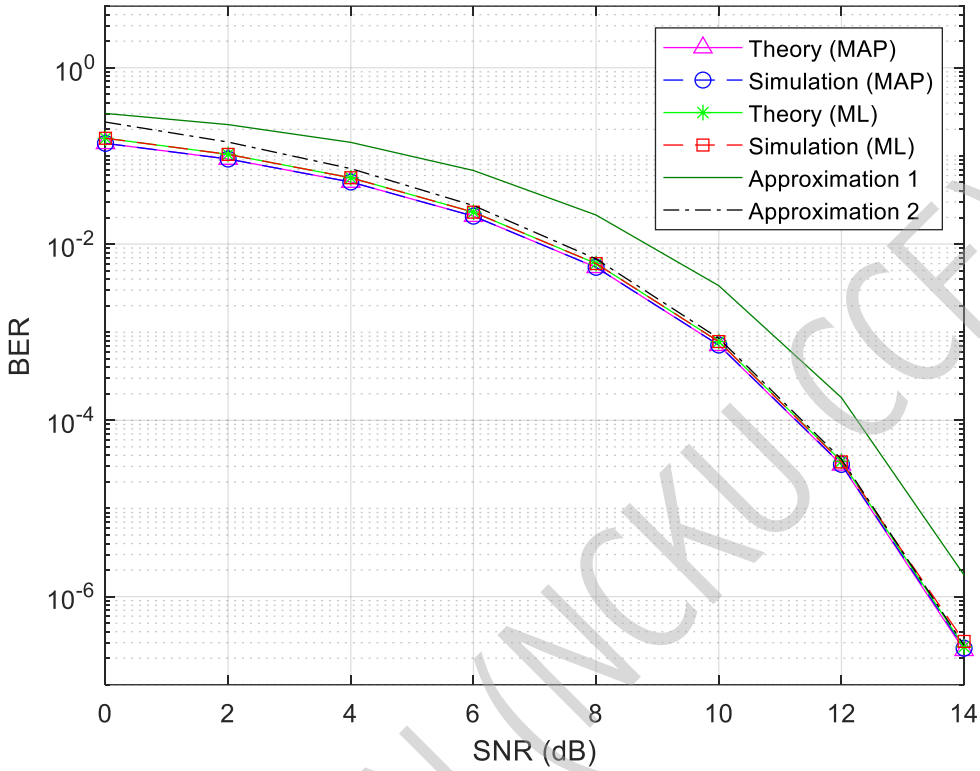
$P(1) = P(s = \sqrt{2}) = P_1 = 0.3$ and $P(0) = P(s = -\sqrt{2}) = 1 - P_1 = 0.7$

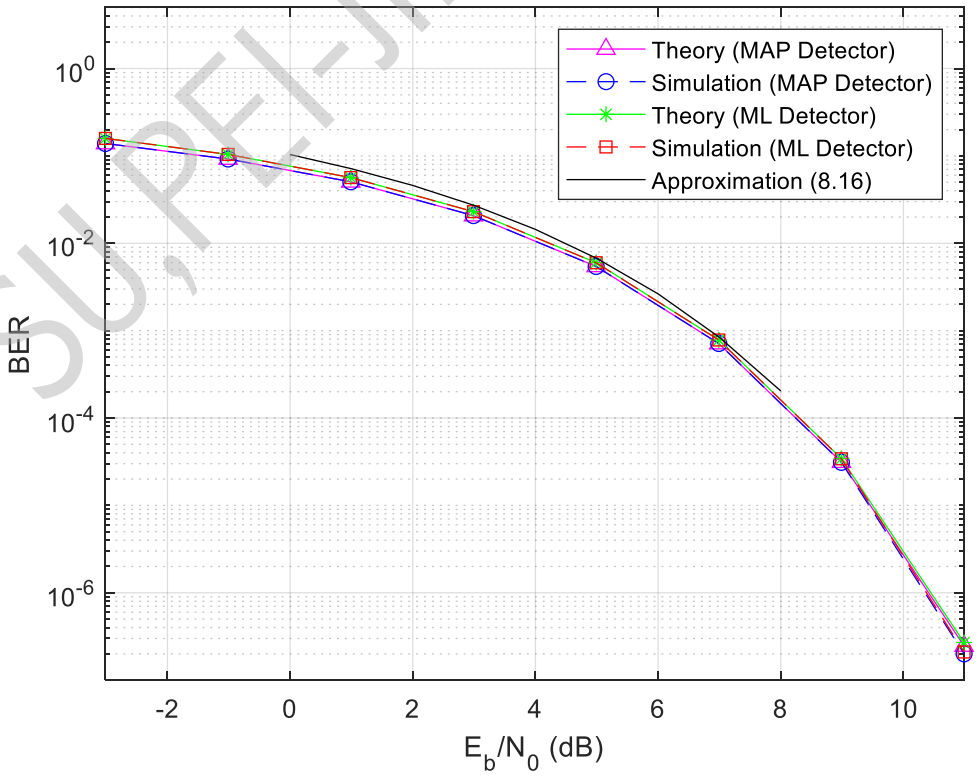




Non-equal probability of the transmitted bits

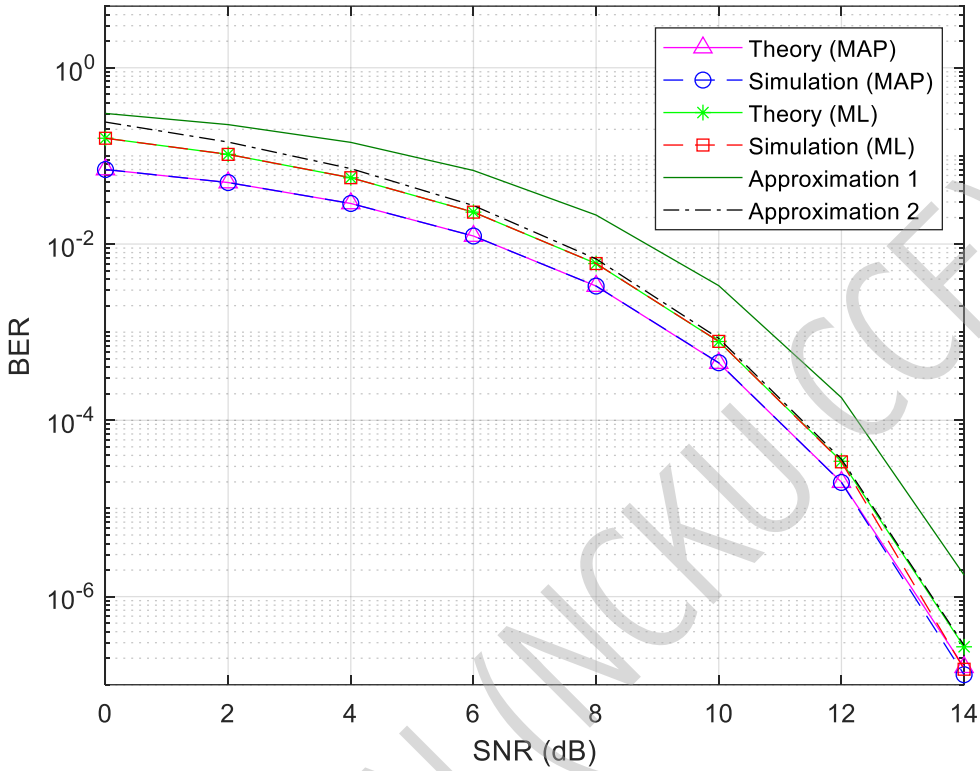
$P(1) = P(s = \sqrt{2}) = P_1 = 0.7$ and $P(0) = P(s = -\sqrt{2}) = 1 - P_1 = 0.3$

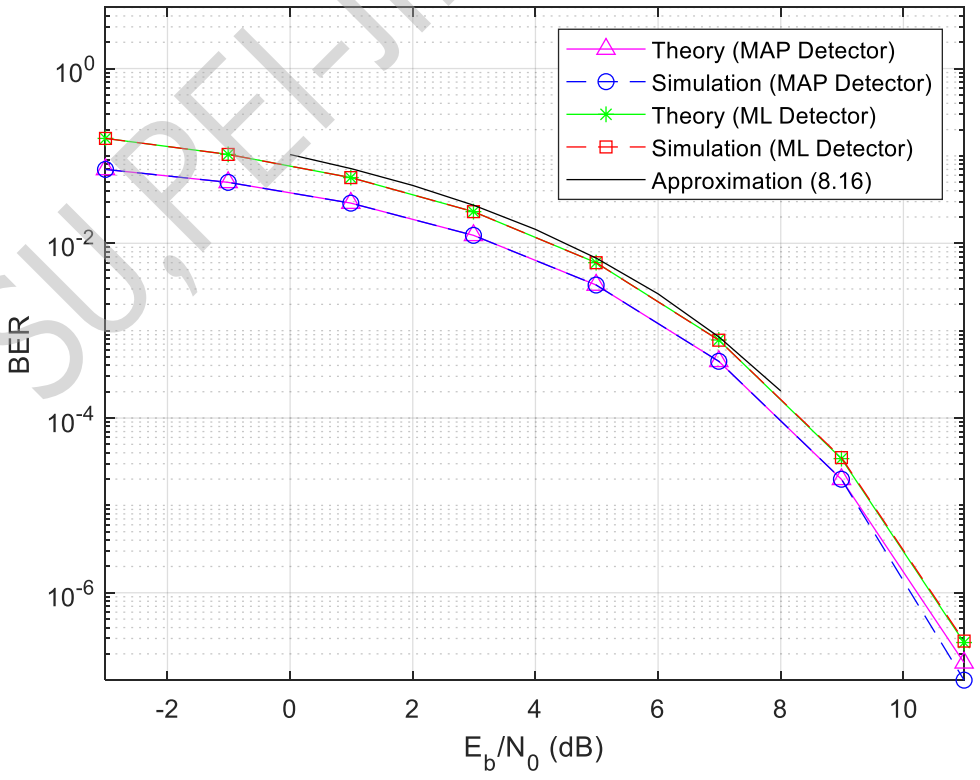




Non-equal probability of the transmitted bits

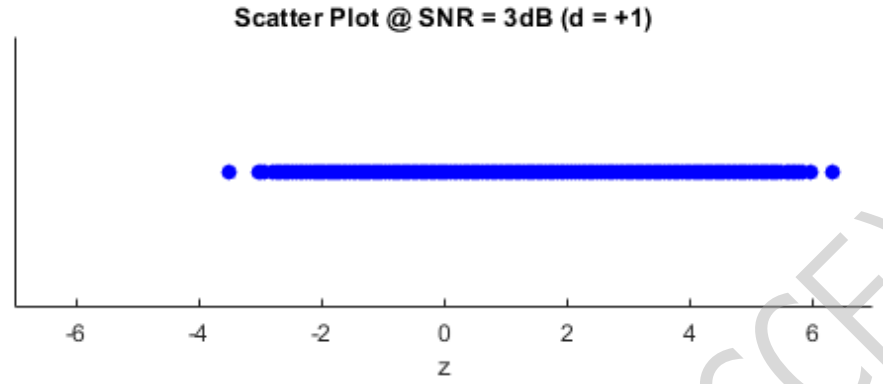
$P(1) = P(s = \sqrt{2}) = P_1 = 0.9$ and $P(0) = P(s = -\sqrt{2}) = 1 - P_1 = 0.1$

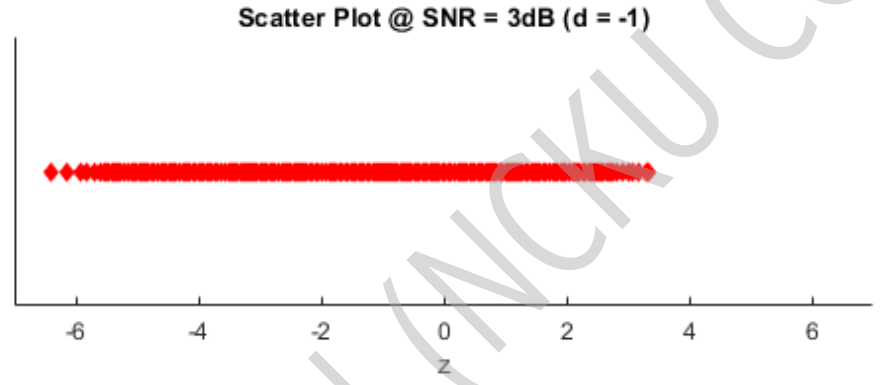


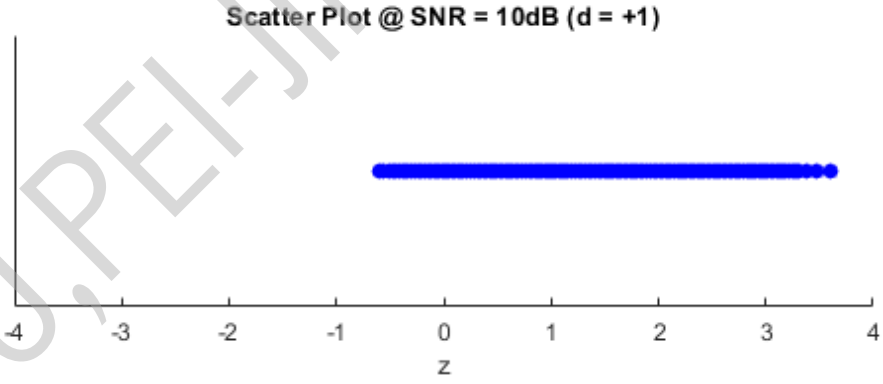


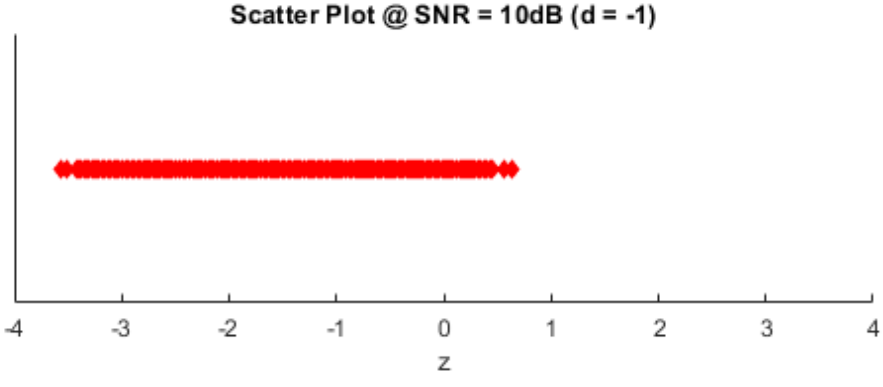
Scatter Plot @ SNR = 3dB and SNR = 10dB

$P(1) = P\left(s = \sqrt{2}\right) = P_1 = 0.5$ and $P(0) = P\left(s = -\sqrt{2}\right) = 1 - P_1 = 0.5$



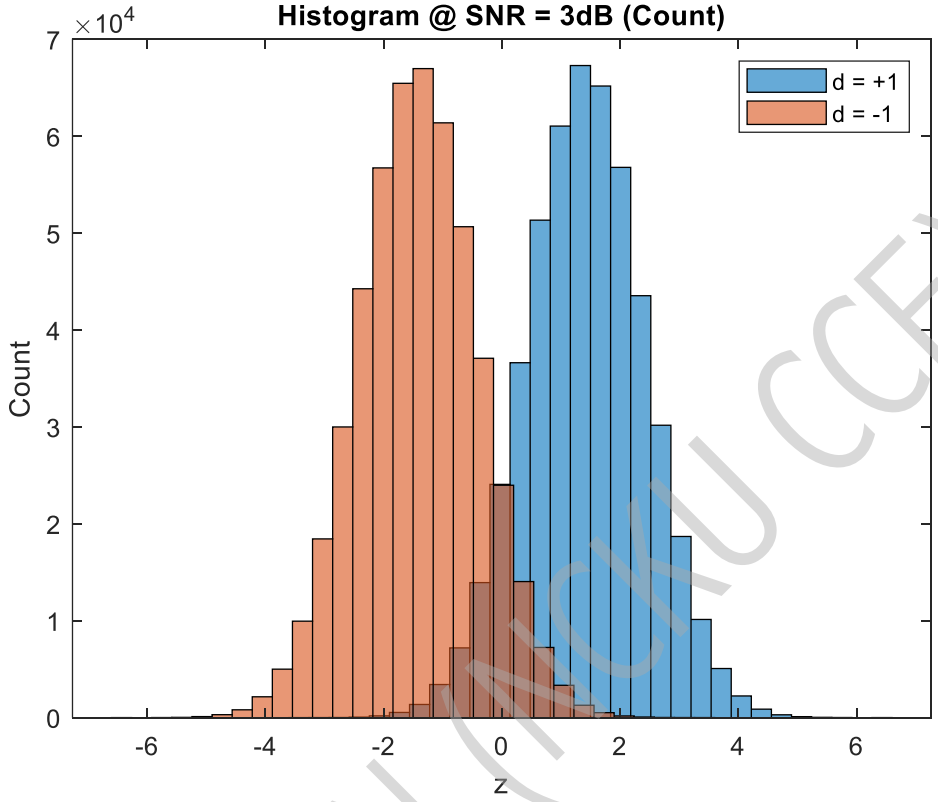


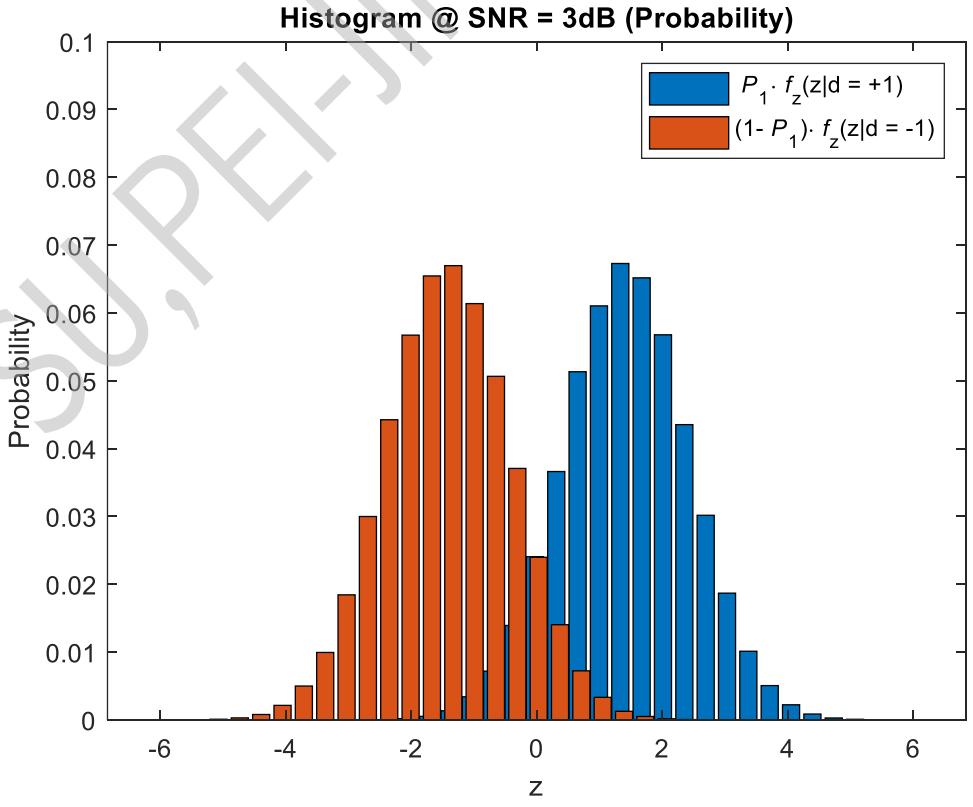


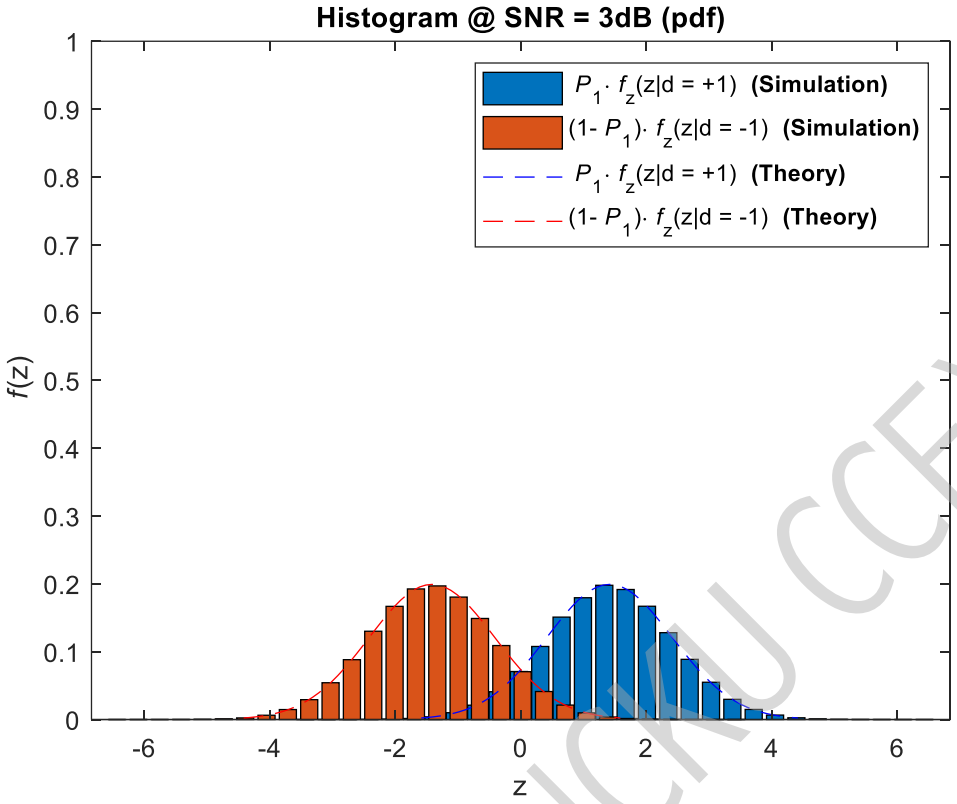


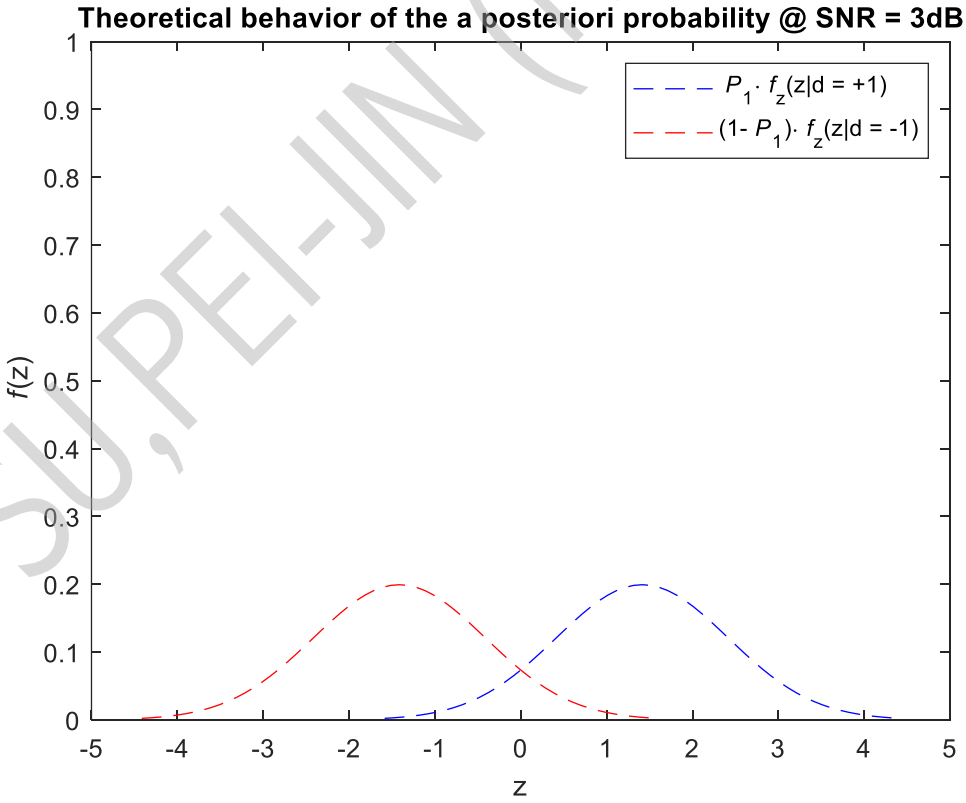
Histogram @ SNR = 3dB

$P(1) = P\left(s = \sqrt{2}\right) = P_1 = 0.5$ and $P(0) = P\left(s = -\sqrt{2}\right) = 1 - P_1 = 0.5$



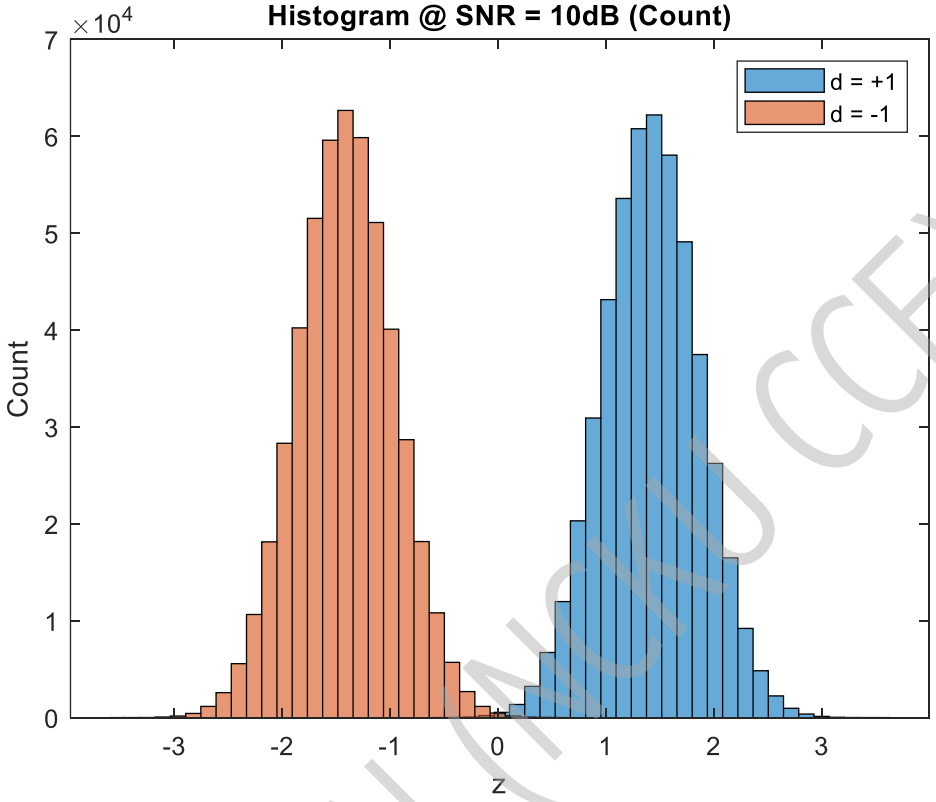


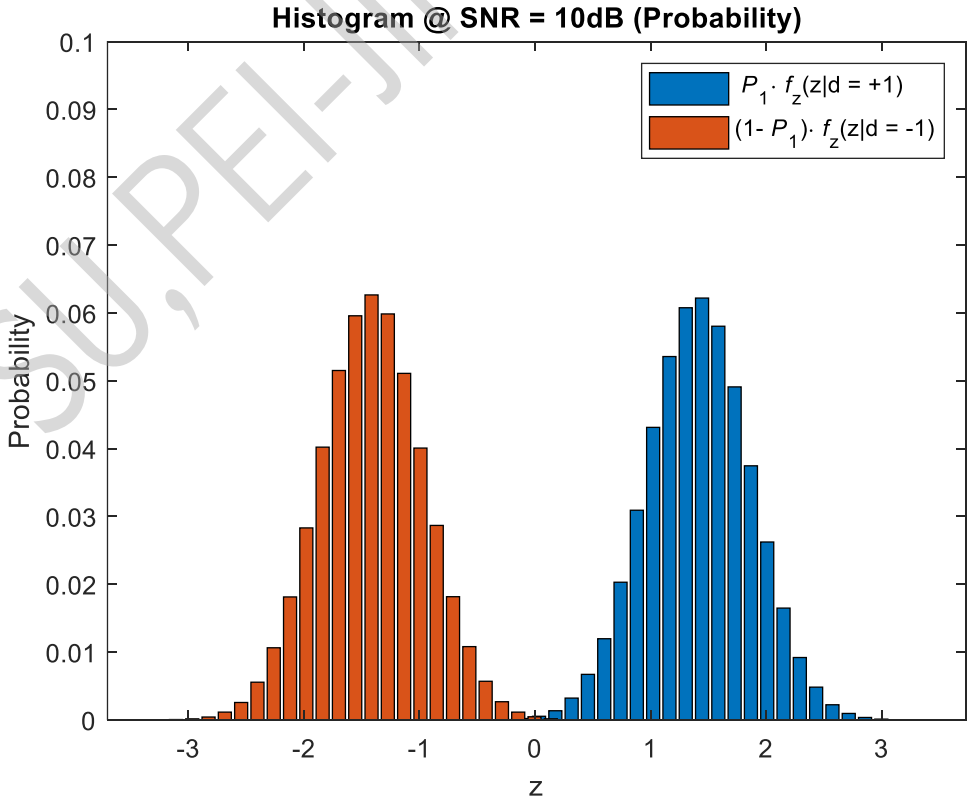


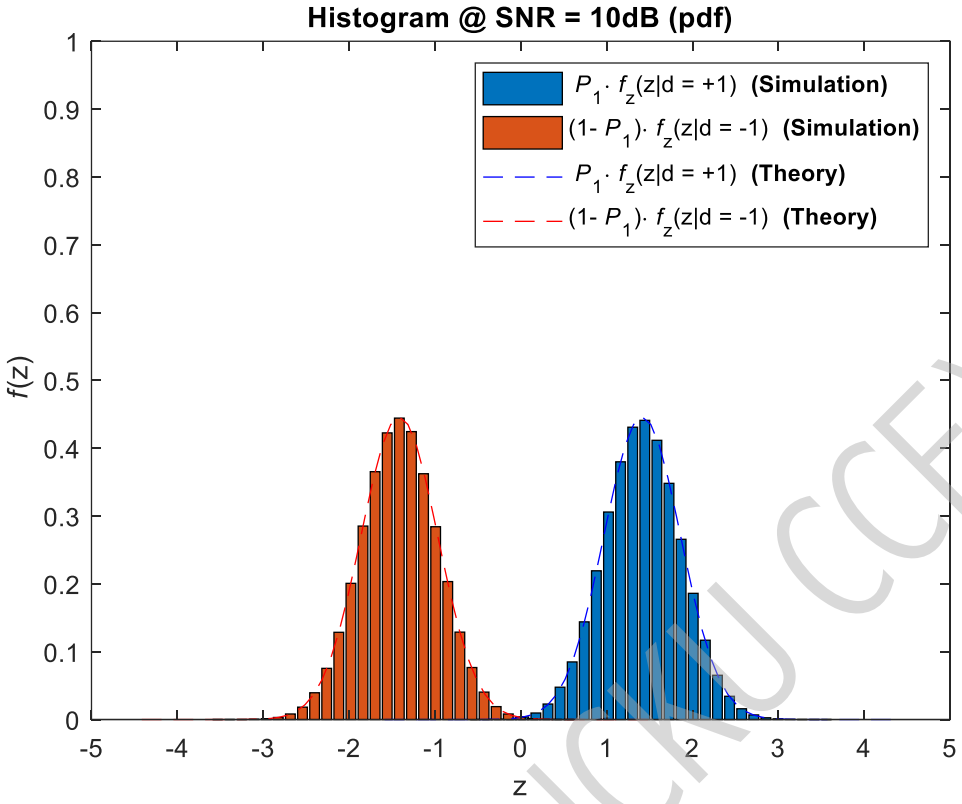


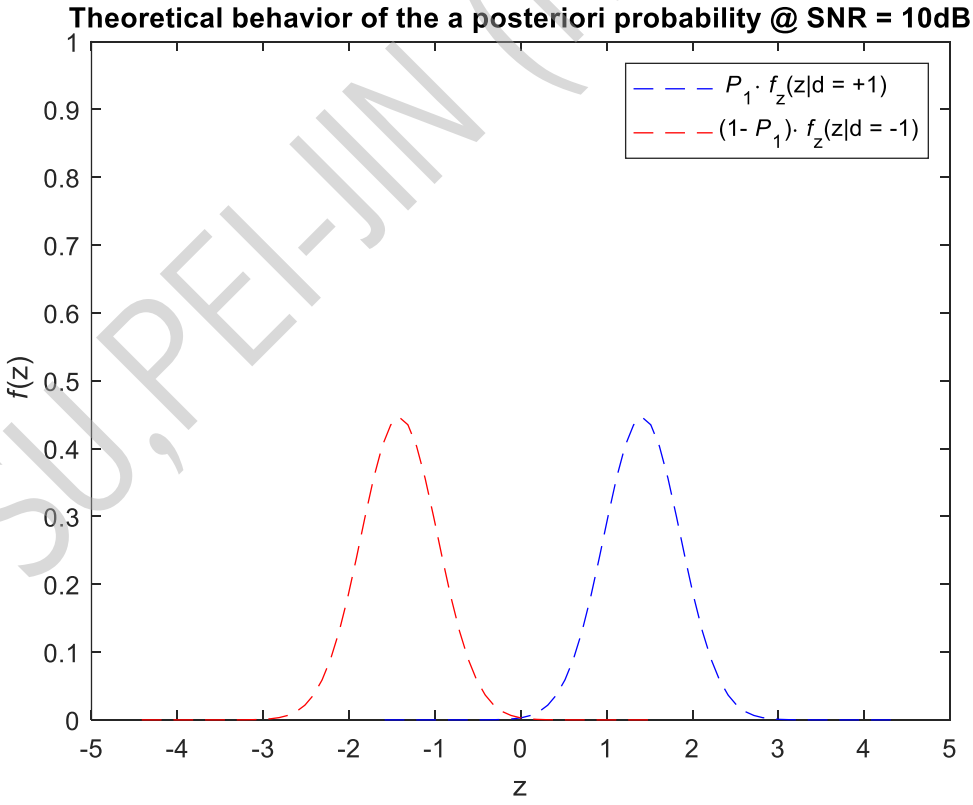
Histogram @ SNR = 10dB

$P(1) = P(s = \sqrt{2}) = P_1 = 0.5$ and $P(0) = P(s = -\sqrt{2}) = 1 - P_1 = 0.5$



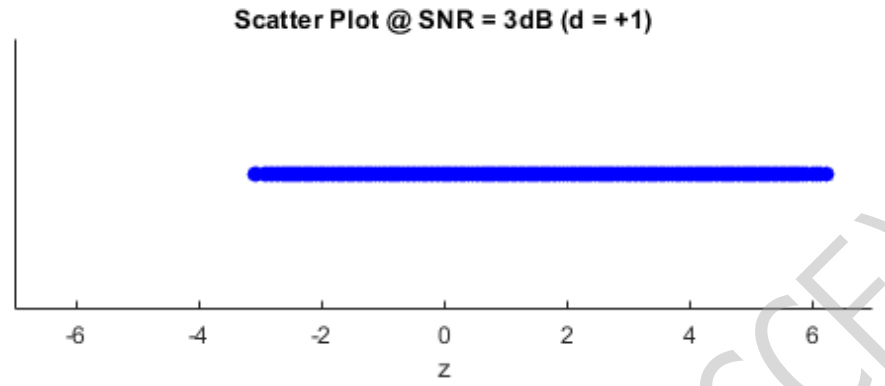


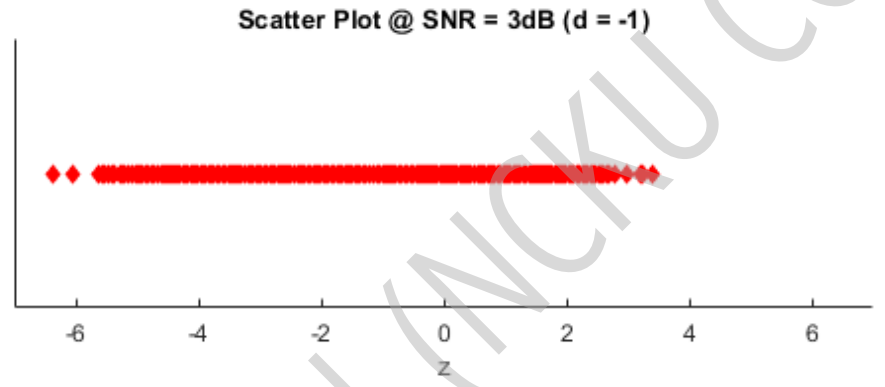


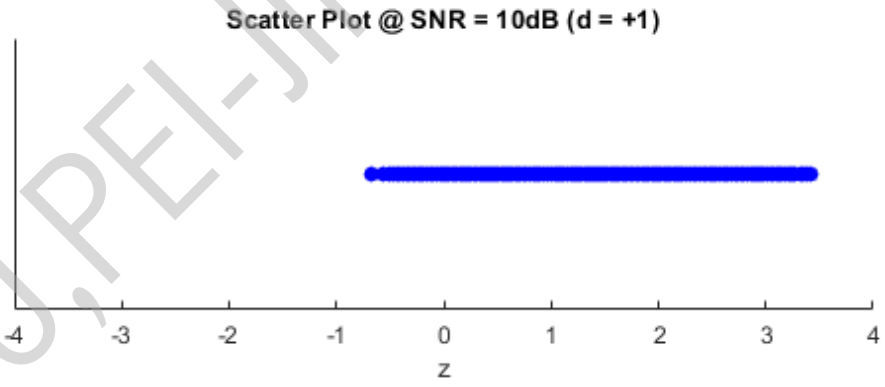


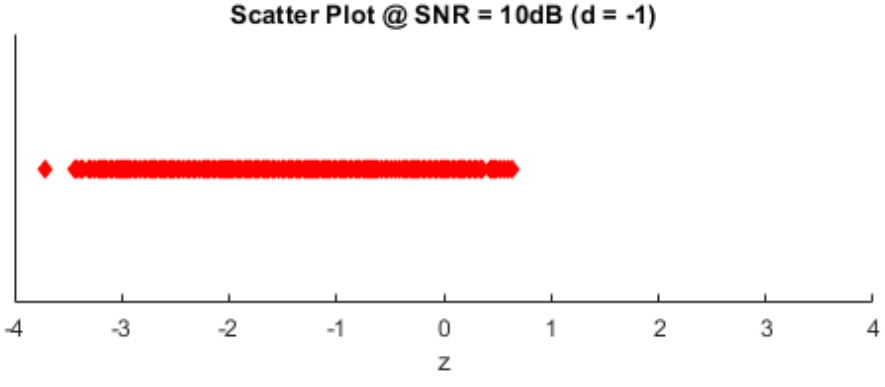
Scatter Plot @ SNR = 3dB and SNR = 10dB

$P(1) = P\left(s = \sqrt{2}\right) = P_1 = 0.7$ and $P(0) = P\left(s = -\sqrt{2}\right) = 1 - P_1 = 0.3$



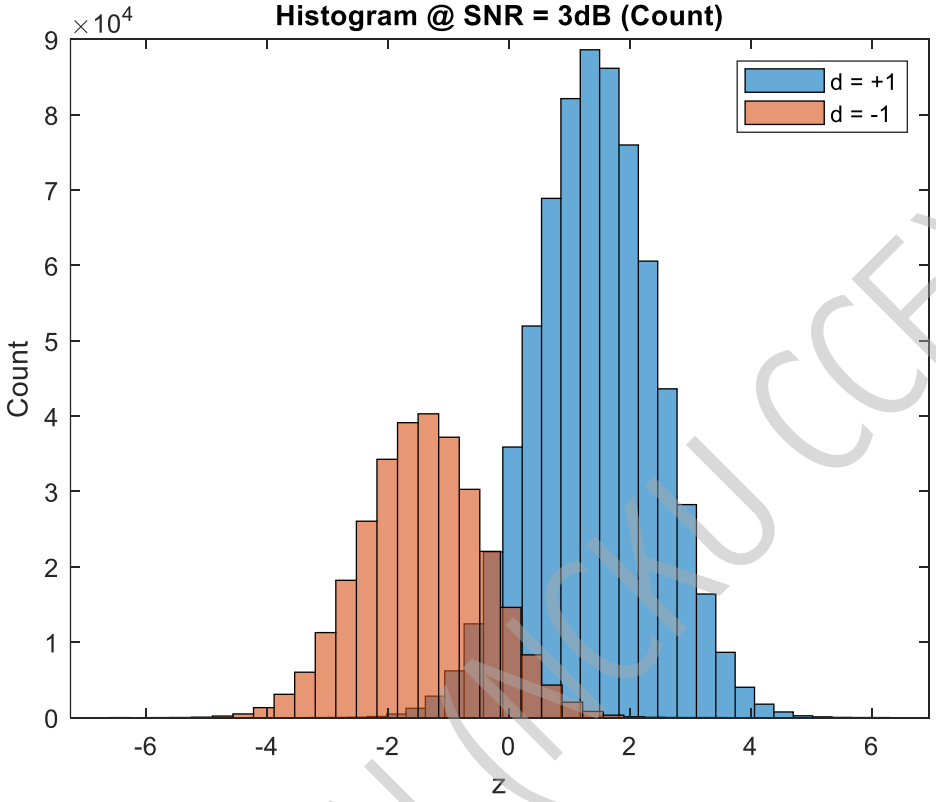


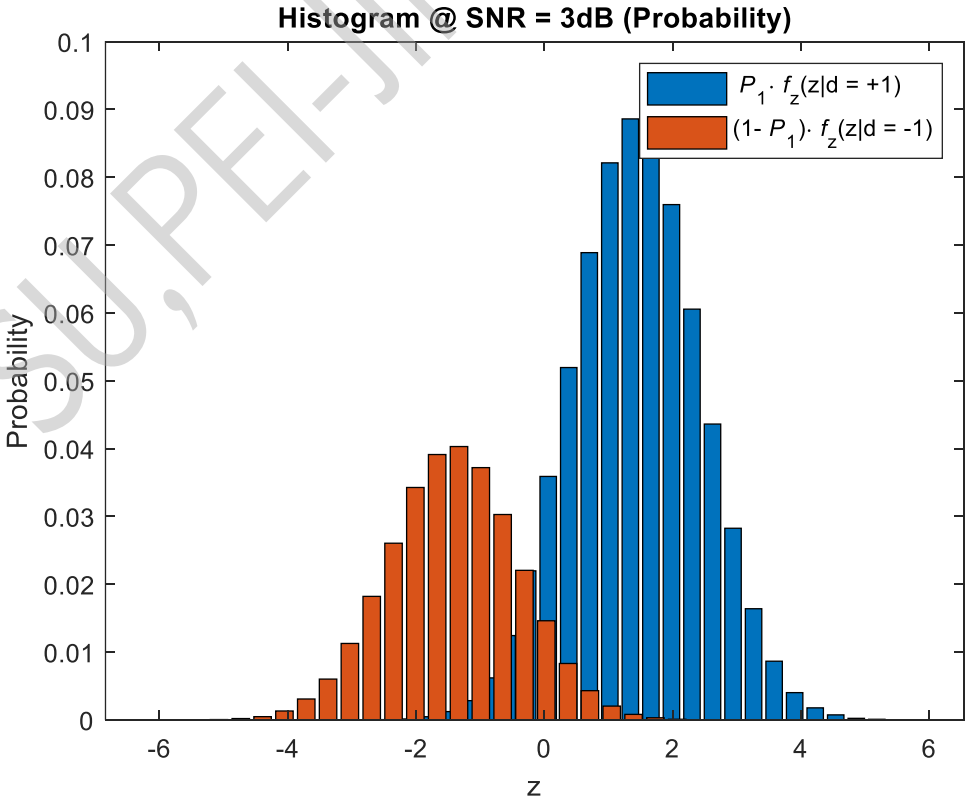


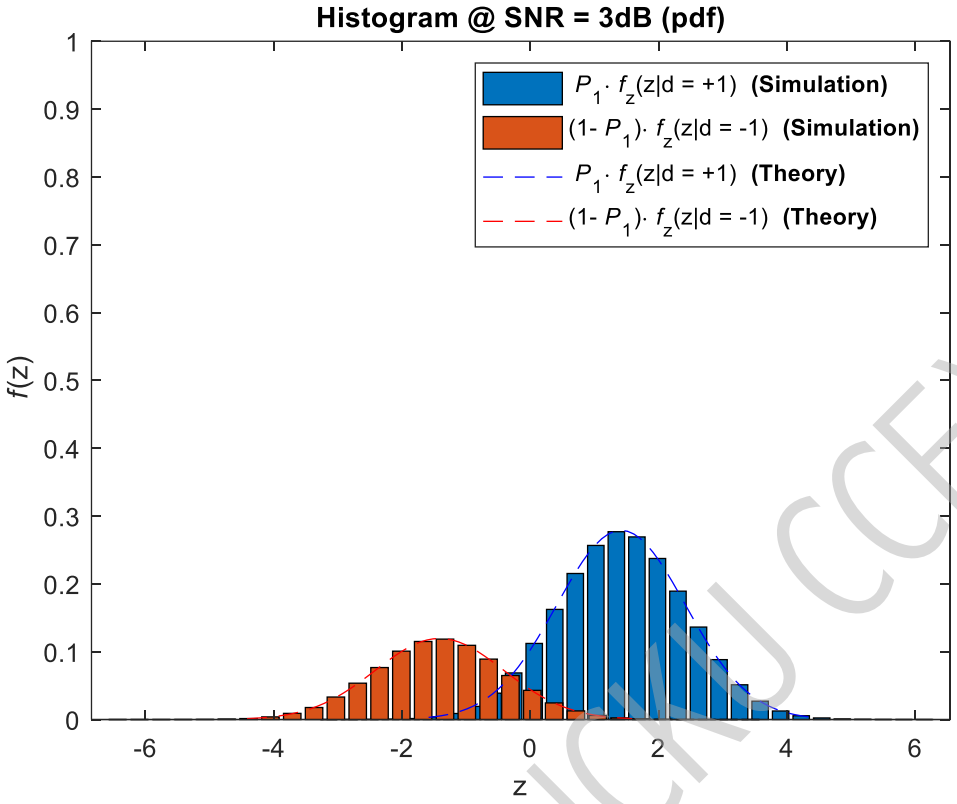


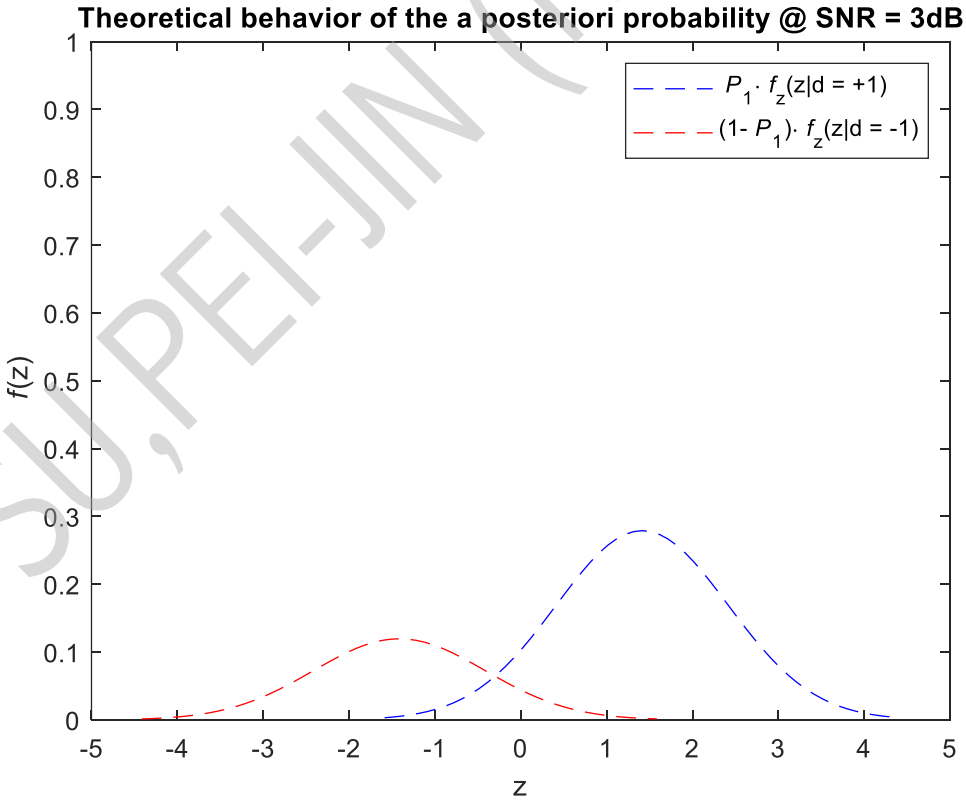
Histogram @ SNR = 3dB

$P(1) = P(s = \sqrt{2}) = P_1 = 0.7$ and $P(0) = P(s = -\sqrt{2}) = 1 - P_1 = 0.3$



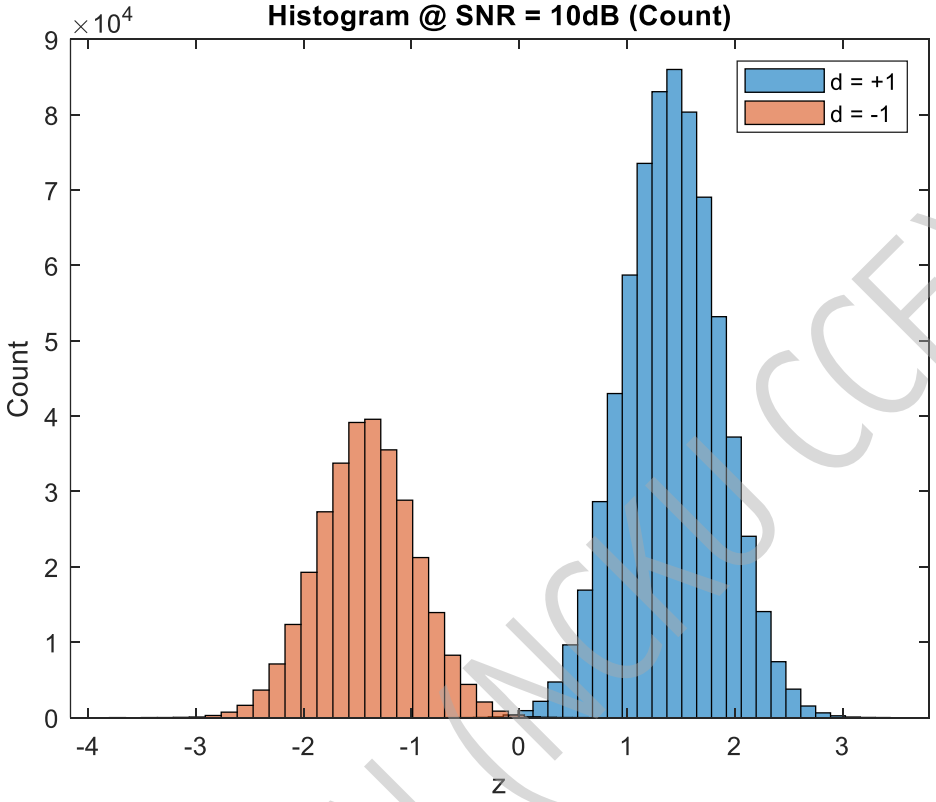


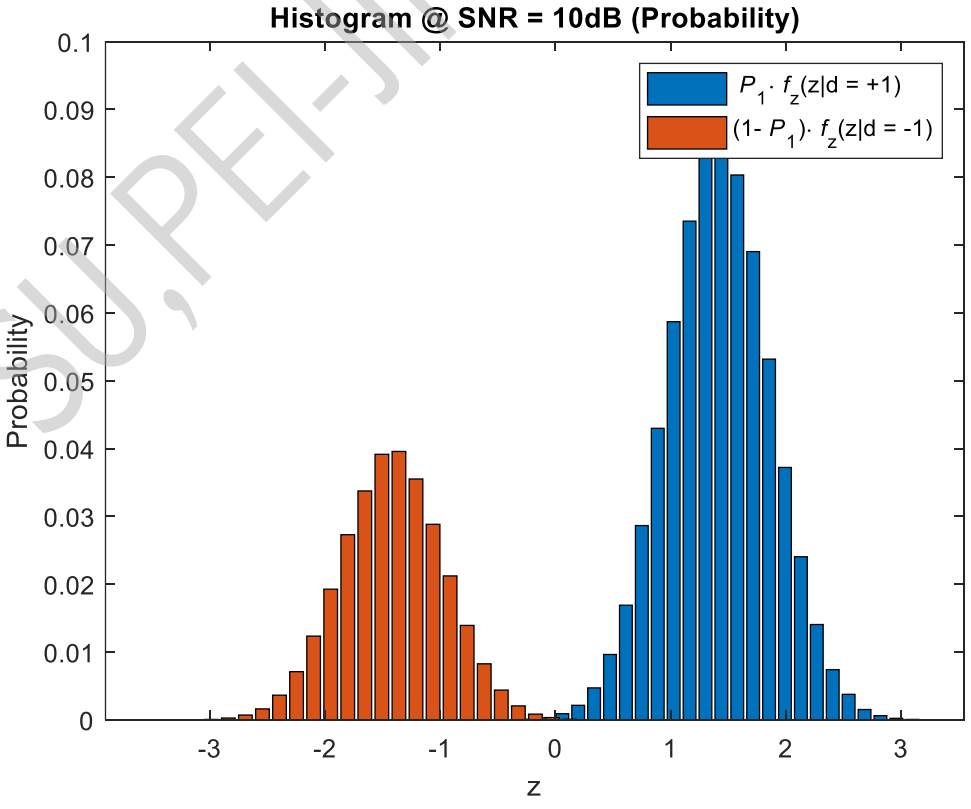


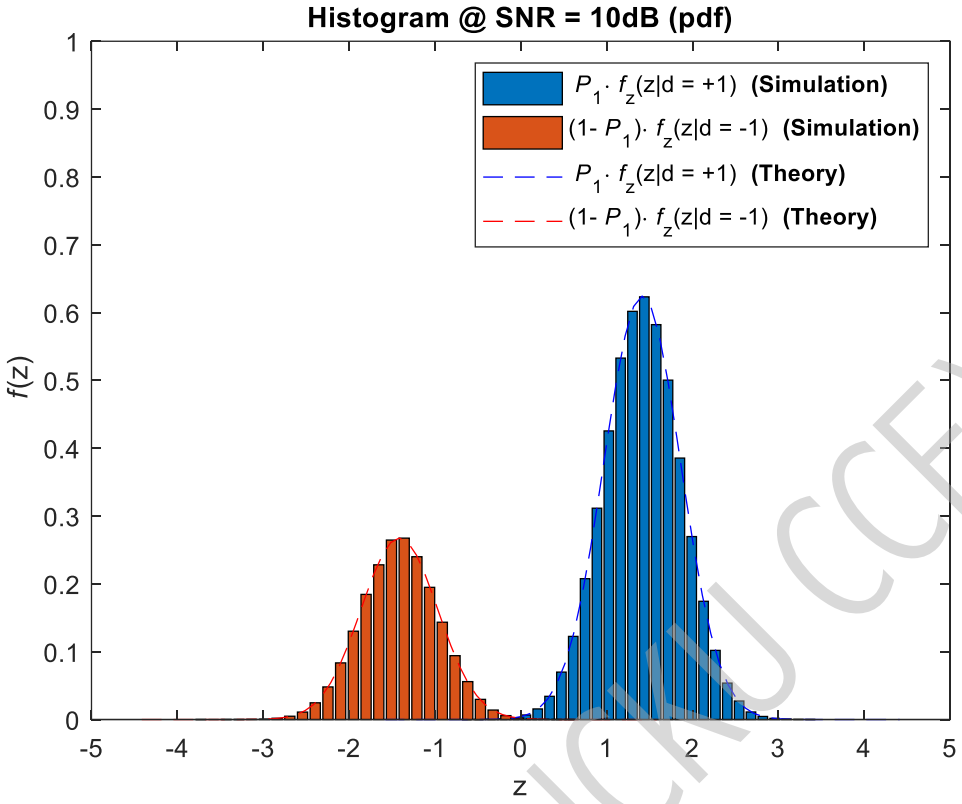


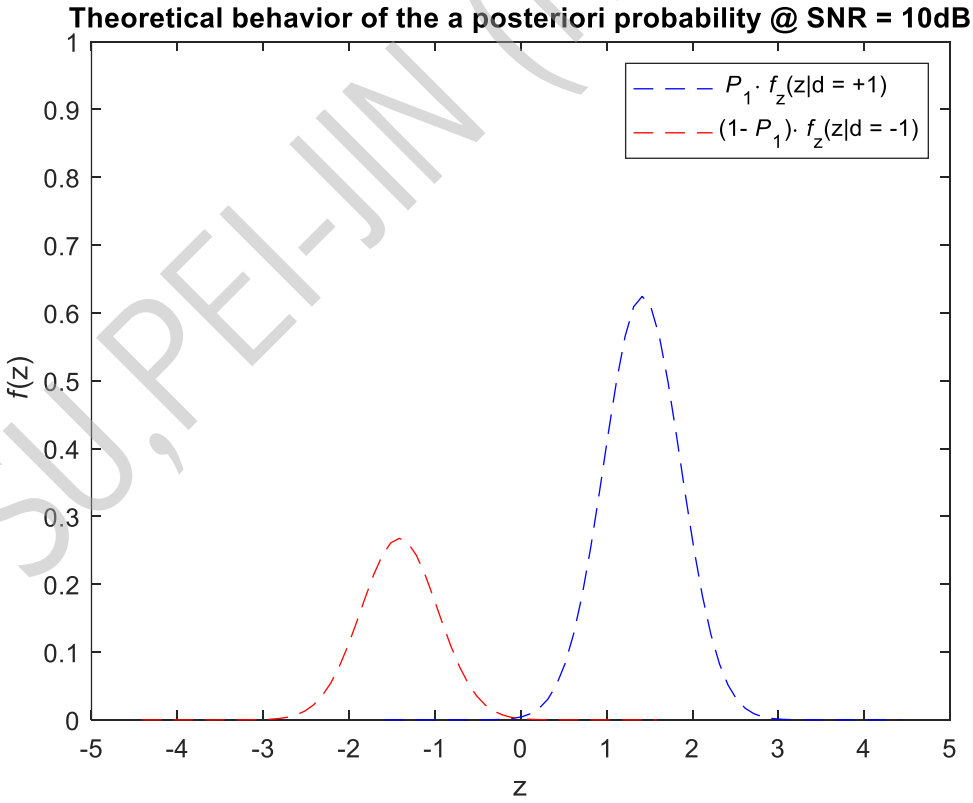
Histogram @ SNR = 10dB

$P(1) = P(s = \sqrt{2}) = P_1 = 0.7$ and $P(0) = P(s = -\sqrt{2}) = 1 - P_1 = 0.3$



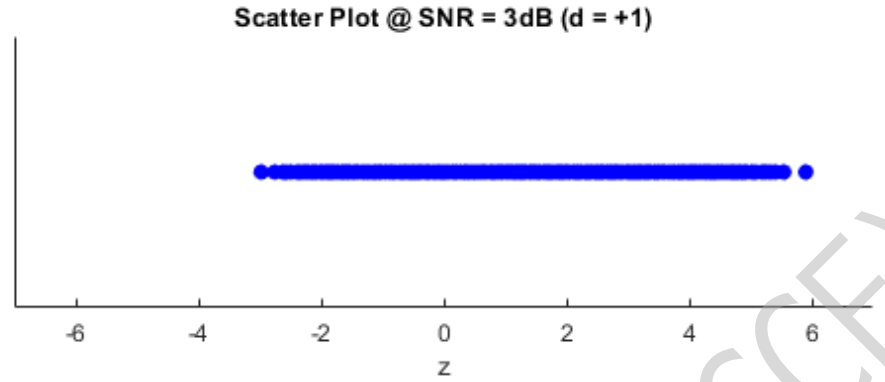


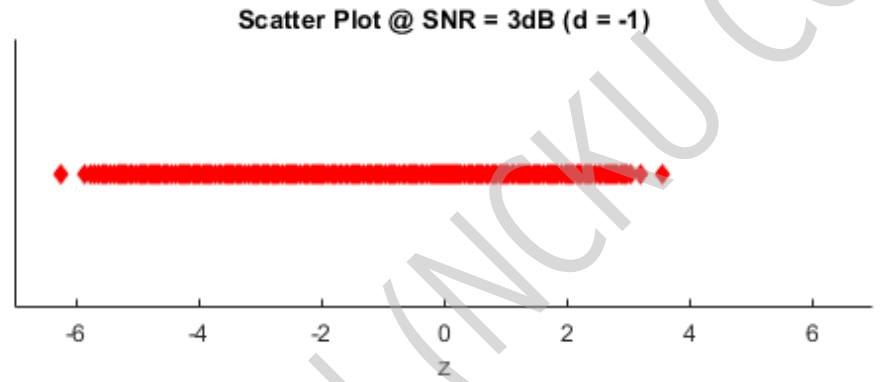


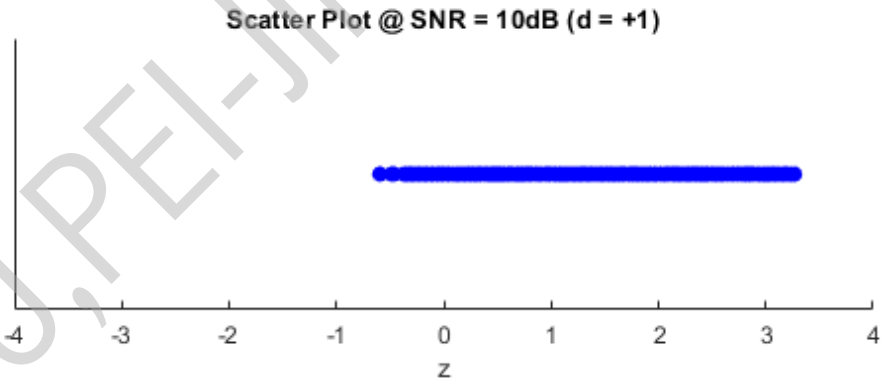


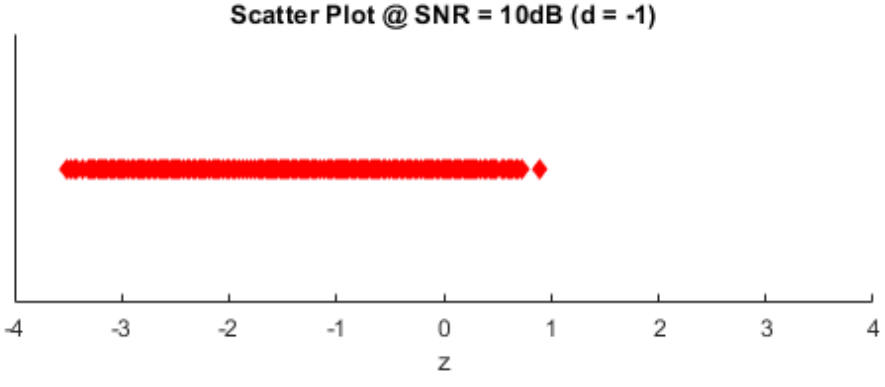
Scatter Plot @ SNR = 3dB and SNR = 10dB

$P(1) = P\left(s = \sqrt{2}\right) = P_1 = 0.1$ and $P(0) = P\left(s = -\sqrt{2}\right) = 1 - P_1 = 0.9$



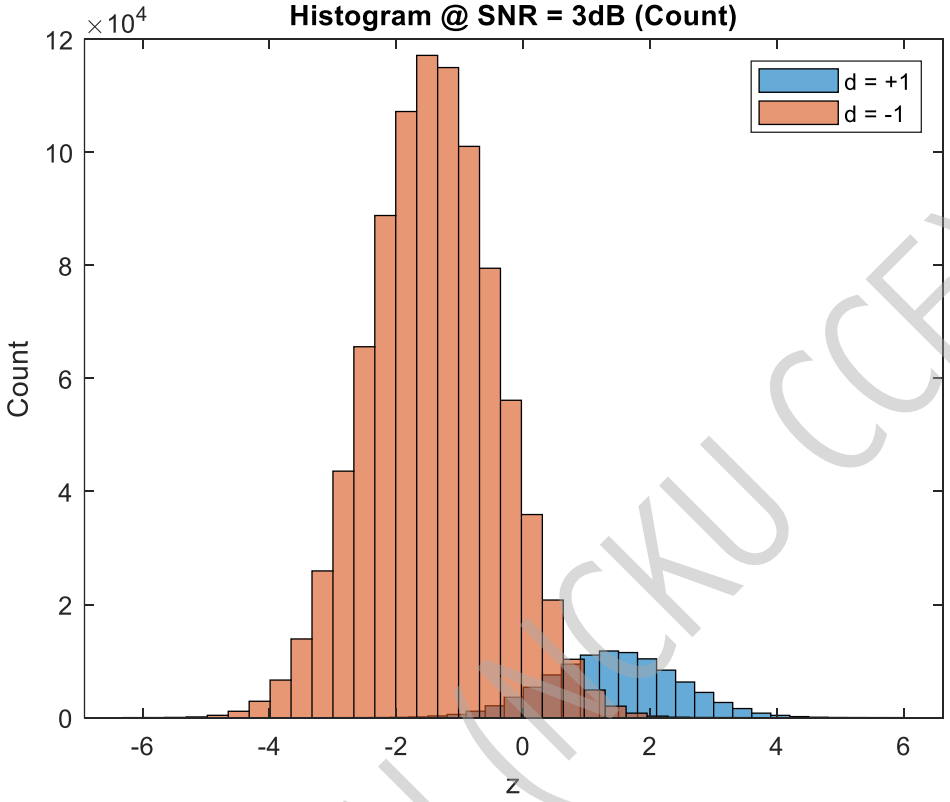


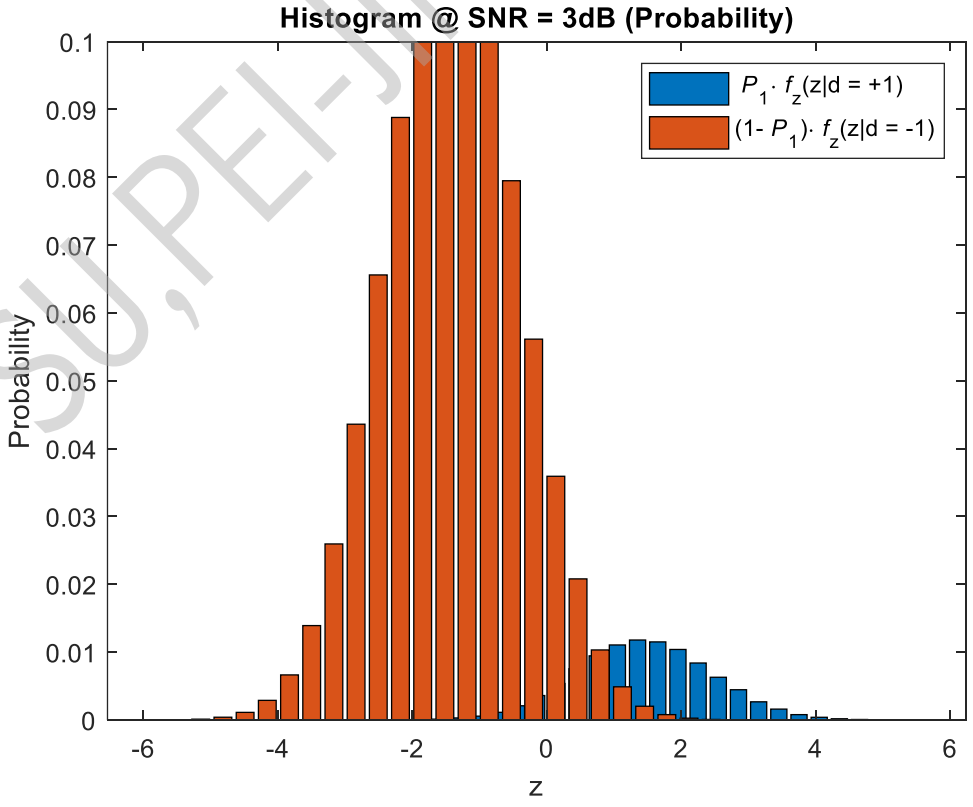


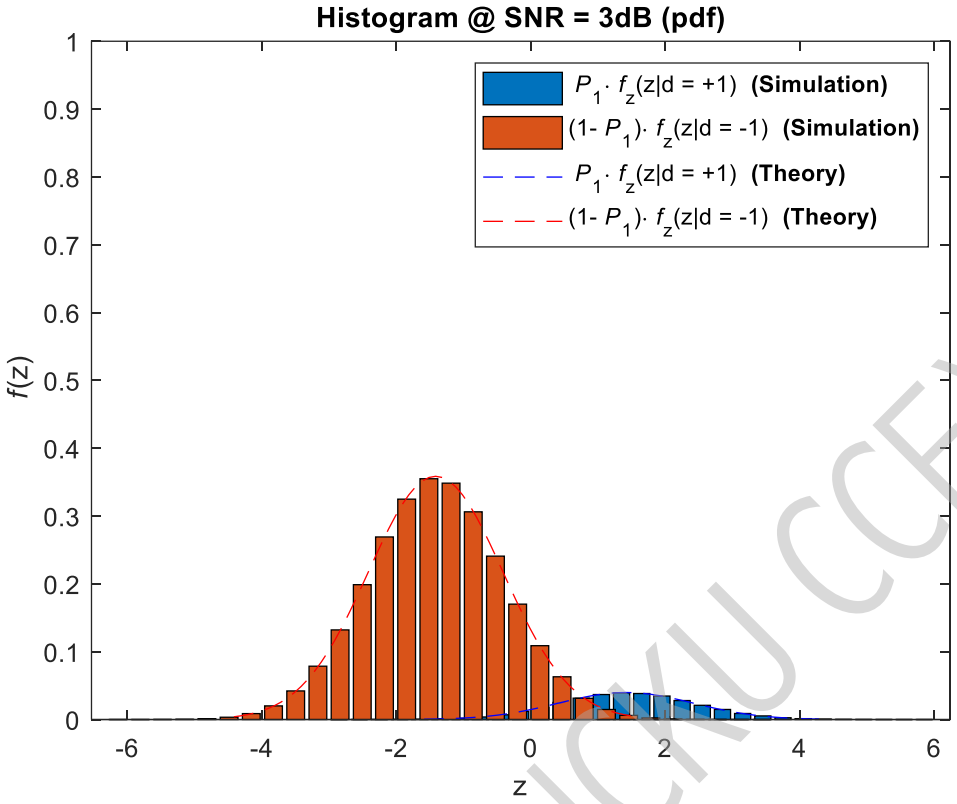


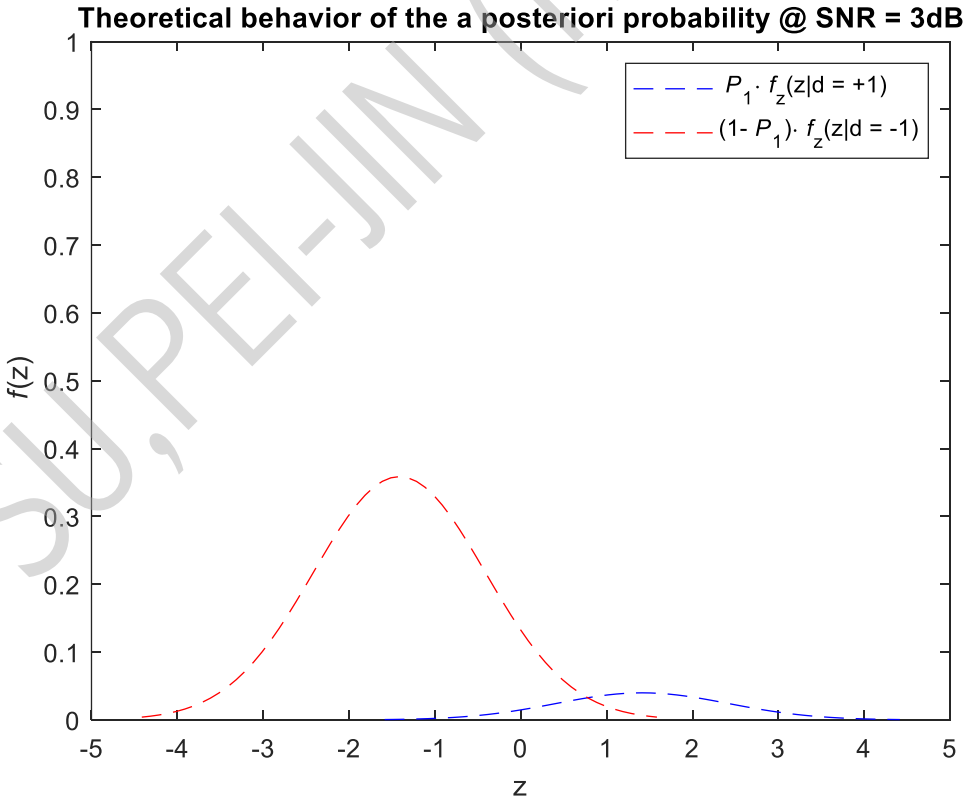
Histogram @ SNR = 3dB

$P(1) = P(s = \sqrt{2}) = P_1 = 0.1$ and $P(0) = P(s = -\sqrt{2}) = 1 - P_1 = 0.9$









Histogram @ SNR = 10dB

$P(1) = P(s = \sqrt{2}) = P_1 = 0.1$ and $P(0) = P(s = -\sqrt{2}) = 1 - P_1 = 0.9$