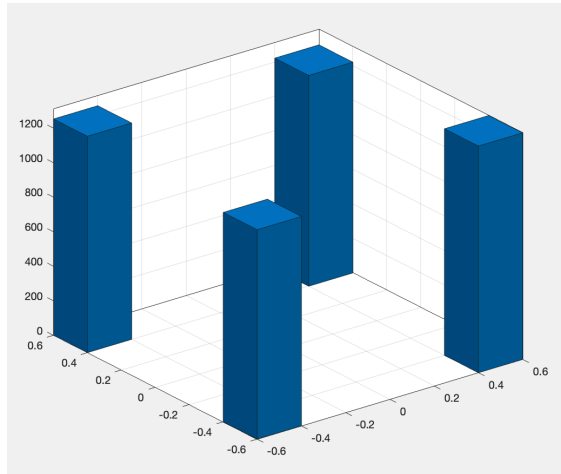
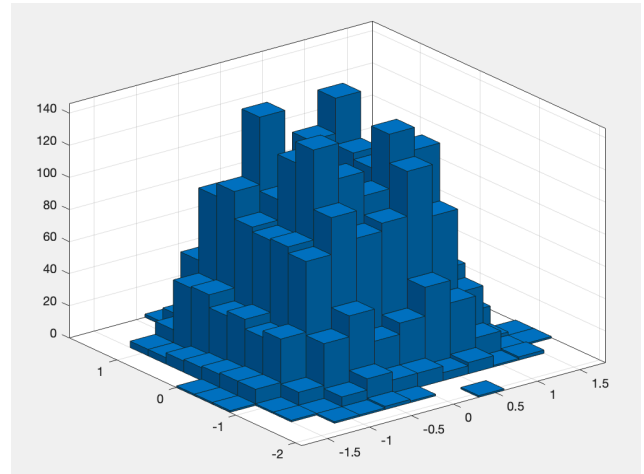


2.

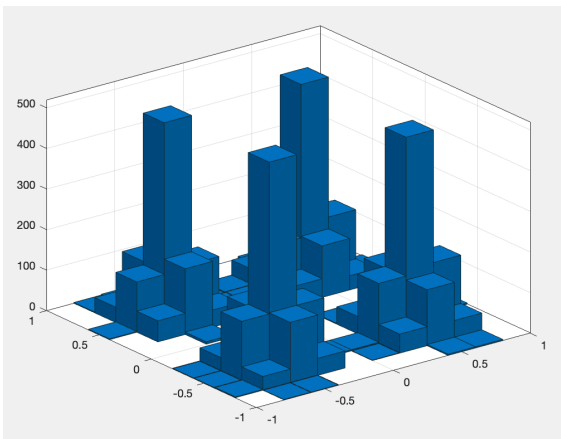
(a) Origin



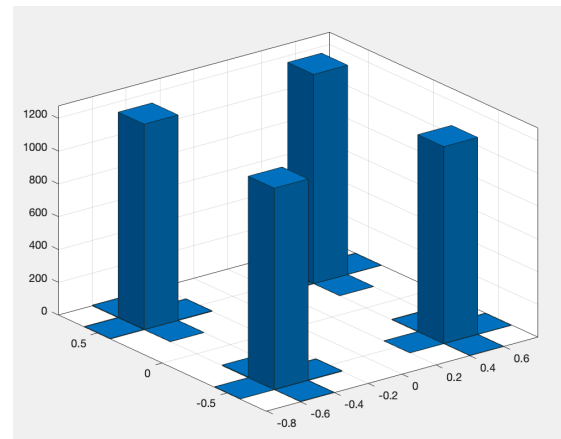
0dB



10dB



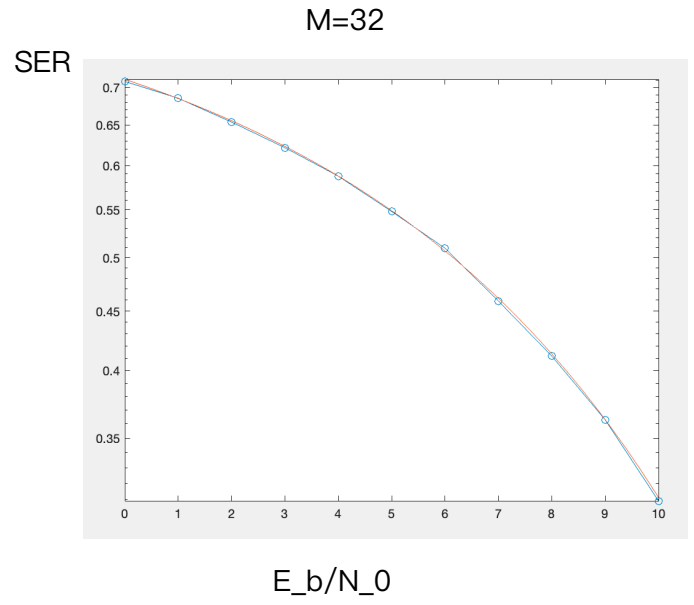
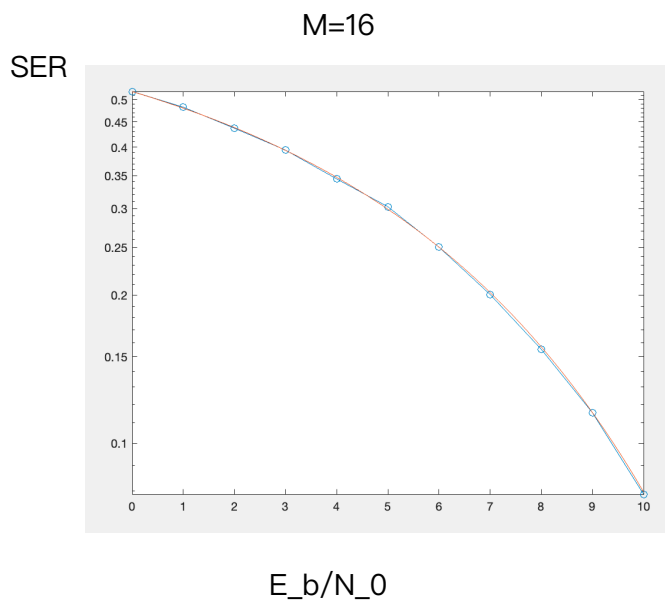
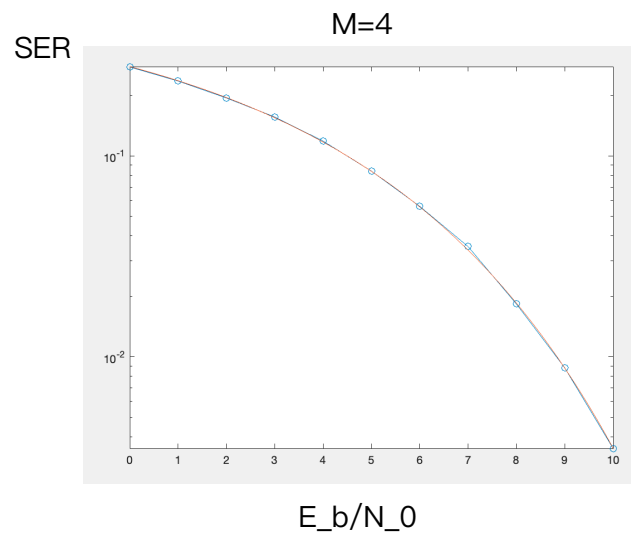
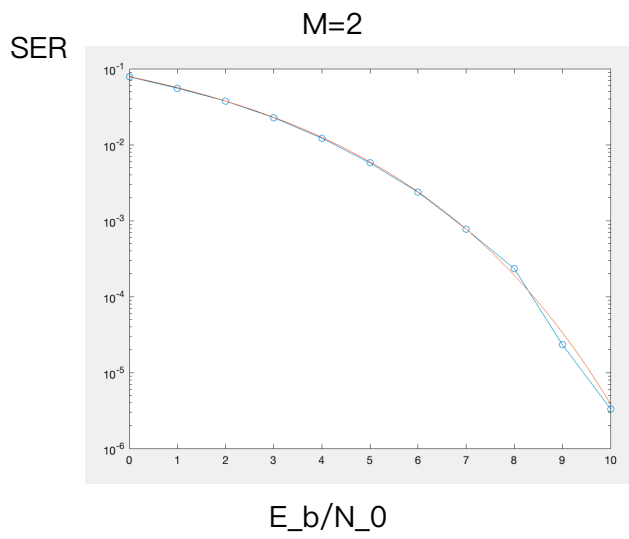
20dB



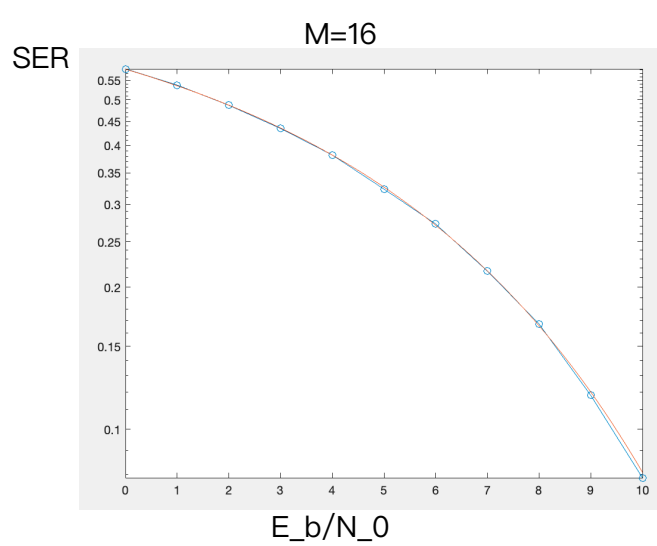
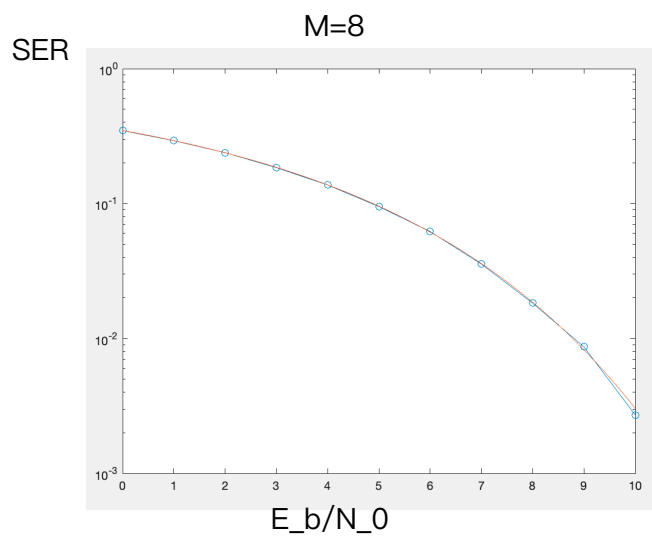
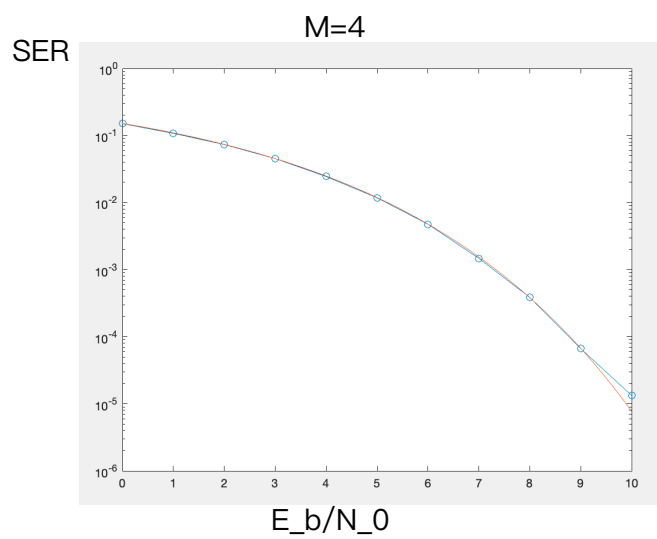
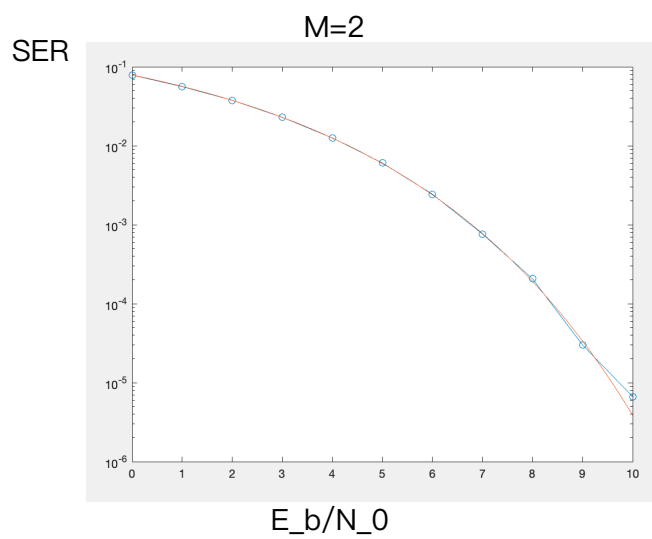
(b)

QPSK	dB=0	dB=10	dB=20
	0.1513	0	0

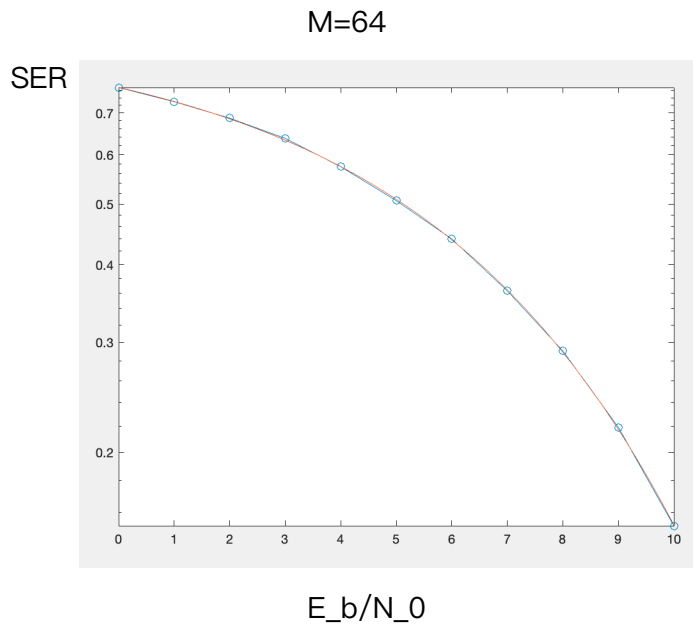
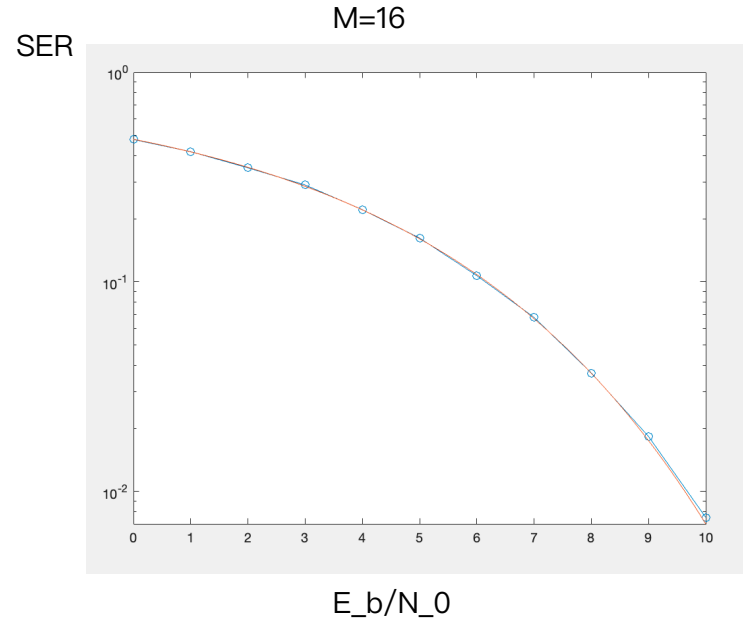
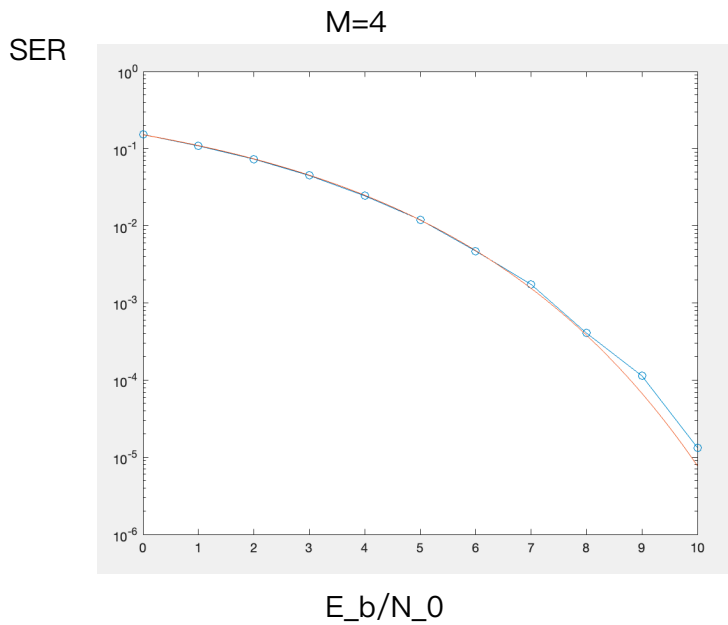
3. Orange: Theoretical, Blue: Simulation
(a)



(b)



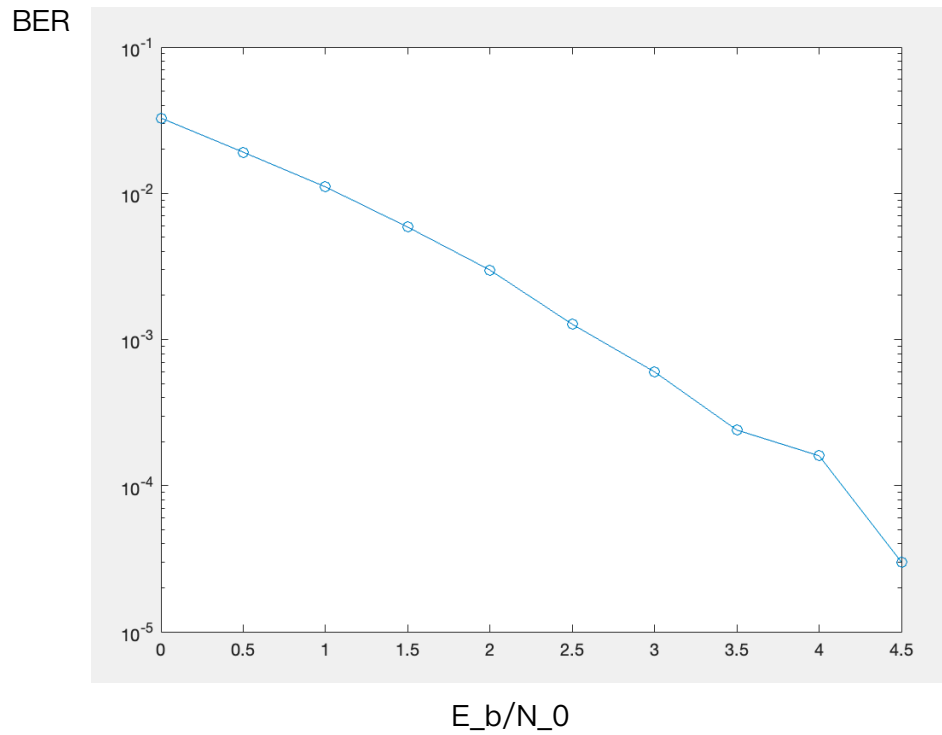
(c)



(d)

As M increases, the SER increases, since it is like you want to tuck a lot of data in a small space. As E_b/N_0 increases, SER decreases, since it can be seen as the noise is rather small.

4.
(a)



(b) Orange: soft, Blue: hard (the const of orange at the end is just for simplicity of plot)
Comparison: Soft is always better than hard.

