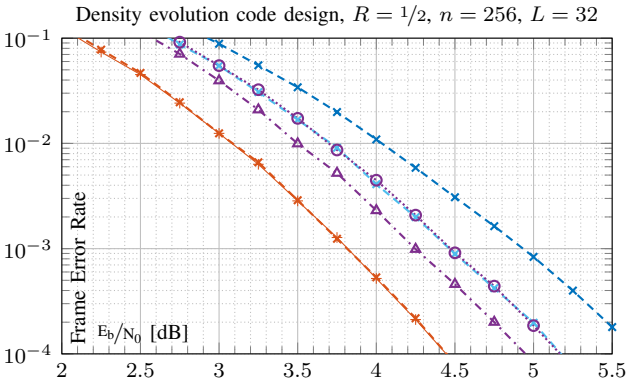
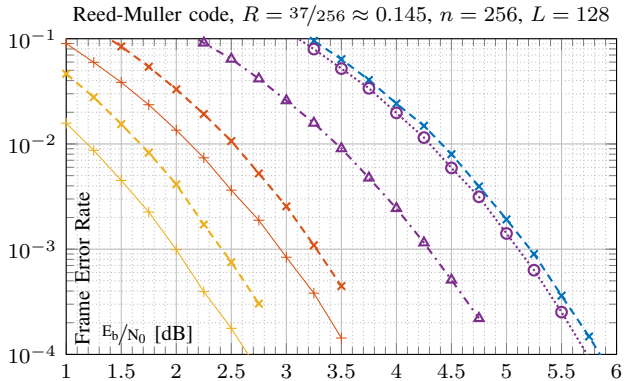



(a) FER vs. $E_b/N_0$ for variants of SCL decoding over the 3Q-BiAWGN channel, demonstrating gains for in-list ML and EPMU.




(b) FER vs. $E_b/N_0$ for variants of SCL decoding over the 3Q-BiAWGN channel, underlining the utility of EPMU at low code rates.

| | CHANNEL | DECODER | METRIC |
|---|---|---|---|
| ×- - - | 3Q-BiAWGN | $\mathcal{L}_3$-SCL | PM-FER |
| ×- - - | 3Q-BiAWGN | $\mathcal{L}_3$-SCL | List-FER |
| ○··· | 3Q-BiAWGN | $\mathcal{L}_3$-SCL + in-list ML | LML-FER |
| △-·- | 3Q-BiAWGN | $\mathcal{L}_3$-SCL + in-list ML + EPMU | LML-FER |
| ×- - - | 3Q-BiAWGN | $\mathcal{L}_\infty$-SCL | PM-FER |
| + ——— | 3Q-BiAWGN | $\mathcal{L}_\infty$-SCL | ML-LB |
| ×- - - | BiAWGN | $\mathcal{L}_\infty$-SCL | PM-FER |
| + ——— | BiAWGN | $\mathcal{L}_\infty$-SCL | ML-LB |

Figure 1. FER vs. $E_b/N_0$, (a) $R = 1/2$ Polar code, and (b) $R = 37/256$ Reed-Muller code, demonstrating the gains due to the proposed techniques.