

the number of transmit and receive antennas enhances the performance of STBC.

The simulation Figure 3 shows the comparison of Alamouti, STBC and no coding. STBC with 4 transmit and 4 receive antennas has the best result of all. So we can say that if we increase the number of antennas the result would be better but the tradeoff in such approach is the increase in the computations at the receiver end.

The QOSTBC can provide full code rate and full diversity. Its decoding complexity is a little higher than the orthogonal STBCs but is still less than that of the non-orthogonal STBCs. QOSTBC outperforms (in a bit-error rate sense) the fully orthogonal 4-antenna STBC over a good range of signal-to-noise ratios (SNRs). It performs better at higher SNRs and better than STBC.

5. References

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