

Error Performance Of Vertical-BLAST Over Rayleigh And Nakagami Fading Channels

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Summary

The study of statistical distribution of errors is a prerequisite in the design of appropriate coding techniques to effectively control errors. An architecture, V-BLAST, that promises very high spectral efficiency is analyzed and compared for two transmitter-receiver arrangements. We analyzed the system performance over Rayleigh and Nakagami channels along with statistical analysis of errors. Average error burst lengths, average error tree lengths and BER are determined. We also evaluate the effects of different interleaver depths. It is shown that increasing the number of transmitters and receivers, and uncorrelated channel paths give improved performance.

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