Abstract

This paper evaluates the multiple-input multiple-output (MIMO) wireless systems in Uncorrelated Rician interference Channel using the successive decoding approach. The analytical and simulation result indicates that the MIMO system provides promising estimates for average BER performance. The extension of MIMO system with n_R receive antennas and n_T transmit antennas to multiple interfering transmitter under the assumption of a common receive correlation matrix indicates that the Rician factor and SNR depend on the full transmit covariance matrices. Also, the numerical result obtained favors large number of Antennas in applicative point of view as the performance of system with larger number of Antennas seems less affected by the variance and the multiple interferes.

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**Index Terms**

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