

Study on the Ergodic Capacity of Rayleigh MIMO Channels

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Abstract: This topic focuses on studying the Ergodic capacity of Rayleigh MIMO channels in wireless communication to overcome signal variations caused by unstable environments. The objective is to determine the characteristics and maximum information limits that the system can transmit. The research method involves combining theory with experiments to build and test a simulation model of the Rayleigh MIMO channel. Expected results provide a scientific basis for designing more efficient wireless communication systems, contributing to the advancement of telecommunications technology.

Keywords: Ergodic capacity, Rayleigh MIMO channel, Wireless communication, System design