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Abstract

In this paper proposes a novel mathematical method to express the outage probability for a desired radio signal received from a mobile transmitter in the presence of multipath interfering

signals with rician and Rayleigh fading. New Rician/Rayleigh outage probabilities curves against the normalized reuse distance without lognormal shadowing effect are presented and discussed. The effect of SIR, Protection ratio R_I , Rice factor K of signals, number of cochannel interferers L on the outage probability and reuse distance D have been investigated.

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Index Terms

Computer Science

Signal Processing

Keywords

Mobile radio system
Outage probabilities

Rayleigh fading

Rician fading