吉林大学学报(工学版) 2009 39 (01): 225-228 ISSN: 1671-5497 CN: 22-1341/T

非再生中继Nakagami-m信道协同系统的性能分析

陈吉学，王文博

北京邮电大学 电信工程学院 信号与信息处理实验室，北京 100876

收稿日期 2007-7-16 修回日期 2007-11-20 网络版发布日期 2009-1-3 接受日期 2007-11-26

摘要 将再生中继协同系统的性能分析推广到Nakagami-m衰落信道，导出其MPSK调制下的概率密度函数，基于此概率密度函数推出系统在不同衰落参数和调制指数下的平均错误概率和中断概率。Monte Carlo仿真结果验证了理论推导的正确性，为工程实际提供理论依据和数值参考。

关键词 通信技术 非再生中继 协同中继 Nakagami-m衰落 平均错误概率 中断概率

分类号 TN929.5

Performance analysis of a non-regenerative relaying cooperative systems over Nakagami-m fading channel

CHEN Ji-xue,WANG Wen-bo

WSPN,School of Telecommunications Engineering,Beijing University of Posts and Telecommunications,Beijing 100876,China

Abstract The extension of the performance analysis of a non-regenerative relay cooperative system to Nakagami-m fading channel was conducted. Probability Density Function (PDF) with PSK modulation was derived. On the basis of this PDF, the expressions for average error rate and outage probability with different fading parameter and modulation factor were also obtained. By Monte Carlo simulations which are the theoretical proof and numerical reference for practical projects, the validation of the correctness of this theoretical analysis extension was proved.

Key words communication non-regenerative relaying cooperative relaying Nakagami-m fading average SER outage probability

DOI:

通讯作者 王文博 wbwang@bupt.edu.cn