

利用Laguerre多項式解聯合機率密度函數分析研究EGC結合多載波展頻CDMA系統

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摘要

本論文旨在研究多蜂巢MC-CDMA蜂巢式系統結合等增益(equal gain combining, EGC) 合成方式，工作於相關衰落通道上之效能分析。在本文中得到一個含有一般式的Laguerre多項式和MC-CDMA 系統平均位元錯誤率 (bit error rate, BER)，而且具任意相關係數之分集結合器的新聯合機率密度函數的封閉形式方程式。結果證明BER取決於多蜂巢環境之分集分支相關特性，而且其受到分支的相關影響十分明顯。

關鍵詞：一般Laguerre多項式；多蜂巢無線通訊；相關Nakagami-m分布；MC-CDMA系統

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