非等增益分支經由選擇性合成(SC)於相關性Weibull通道中之研究

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摘 要

在本文中我們將研究在雙分支的選擇性合成（selection combining，SC）接收器下的平均準位跨越率 （level crossing rate ，LCR）)和平均衰落區間 （average fade duration，AFD）兩者與正常化封波準位之間的系統效能.並且討論假設在多樣路徑下等增益分支(equal gain) 和非等增益分支(un-equal gain)兩者的系統效能分析及考慮在相關性Weibull 通道衰落環境下的特性描述。經過本篇論文研究後，我們提出新的方程式及數字結果來驗證其分析的準確性，並且透過Weibull 分布的各種不同衰落參數（fading parameter）來進行彼此的數值分析。此外，更讓我們依據研究出來的數據圖形結果，明顯的看出選擇性分集的系統效能會受到非增益分支的影響，更藉此說明選擇性分集在無線通訊系統中的分析和設計時各種環境中參數考量的重要性。

關鍵詞 : 平均準位跨越率（LCR）; 平均衰落區間（AFD）; 選擇性合成SC(selection combining) ; 等增益分支(equal gain) ; 非等增益分支(un-equal gain)

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