

利用多維合成機制克服載波頻率偏移現象發生於MC-CDMA系統之實現 = Mitigation for the phenomenon of CFO in MC-CDMA systems ..

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摘要

在本篇論文當中，我們假設載波頻率偏移 (carrier frequency offset, CFO) 現象在短期衰落環境中，存在於內載波干擾 (inter-carrier interference, ICI) 所引起的環境中，就MC-CDMA (multi-carrier coded-division multiplex-access) 系統而言本論文提出和設計一個多維合成機制的接收機，我們所提出的系統中，假設工作環境狀態在選頻(frequency selective)衰落環境當中，此外一些系統的參數，例如多重路徑數目、多維合成機制的天線數目、衰落參數、功率衰減因素，多重路徑強度剖面 (multipath intensity profile, MIP) 和天線之間的相關特性也在分析時被採用，經由本論文研究發現多維合成機制的接收機可以大量的克服系統效能的惡化，不僅在相關衰落模型的衰落參數支配MC-CDMA系統的效能，多維合成機制的天線也明確的影響系統的效能，為了本論文確認並且證明獲得來源正確性的，在本論文系統數值分析的結果將被說明中。

關鍵詞：載波頻率偏移；MC-CDMA系統；多維合成機制(M-D combining)；多重路徑強度剖面

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