FBC 與 CFO同時衝擊非同步上鏈MC-CDMA系統效能之研究

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摘 要

載波頻率偏移 (carrier frequency offset, CFO) 明確地降低了多載波分碼多重存取 (multi-carrier coded-division multiple-access, MC-COMA) 系統的效能，此一結果雖是一個頻繁討論的問題；然而，衰落分支相關性 (fading branch correlation, FBC) 是另一個重要參數，其罕見的存在於MC-CDMA系統的研究中，由於，為了得到簡化的代數式，FBC幾乎被考慮為具有獨立性。結合CFO 和FBC參數問題的探索，在本論文中進行研究，也就是說，本論文主要研究CFO和FBC同時並存於MC-CDMA系統的系?i性能。MC-CDMA系統效能的位元錯誤率 (bit error rate, BER) 模擬，是利用探討CFO和FBC之參數數值加以完成，其中它們個別地標示為 和 。根據採取數個相同量的數值摸擬，CFO和FBC分別採取相等的量，從0.4到1.0之間的值。此外，經由CFO和FBC的數學式，在MC-COMA系統的模擬計算結果，可以說明CFO之影響來得比FBC明顯。

關鍵詞 : 位元錯誤率、載波頻率偏移、衰落分支相關性、多載波分碼多重存取

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