整合演化技術於生物系統建模

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摘 要

發展演化算法以為米氏（MM）型生物系統模型的參數識別。因其非線性和推導問題，MM模型系統參數的識別推衍，是一項複雜的任務，。在這項研究中，一個參數估計算法以推斷MM模型參數的建議被提出。這種新穎的算法，以並行雜交戰略，結合了兩種參數估計方法：遺傳算法（GA）和粒子群優化（PSO）。解耦方法則來提高估計的參數值之細化精度。算法的性能評估來自兩個方面：參數估計錯誤和結構鑑定的準確性。 該算法應用於三種不同的模型其模擬數據取自MM模型系統。結果證明，該算法比現有方法具有較低的估計誤差和更高的識別精度，即令在更廣泛的搜索空間（從0到5000)。

關鍵詞 : 參數識別，系統估計，進化算法。

目錄

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