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不安定指數法改進模式應用於南勢溪集水區山崩潛感分析之研究

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摘　　要　邊坡破壞潛勢分析中，不安定指數法的應用已相當廣泛，可是由於不安定指數法無法客觀訂定出山崩危險分級門檻值，致使潛感預測結果之客觀性常引起質疑。本文嚐試以混亂矩陣方式訂定此關鍵門檻值，同時可求得不同門檻值之誤判率，進而依所訂定門檻值進行分級，可謂一較有系統與連貫性之做法。此外本文亦根據前人研究所訂定出之三種分析模式，分別說明其在大區域尺度、小區域尺度、資料精度不同情況下分別之適用性，並據此延伸出適合本區域之預測模式。新模式之特點在於區域尺度上取得一平衡點，較不受尺度之影響，經過與現地資料比對驗証，確實能獲得較原模式佳預測成果，最後依據新模式繪出山崩潛感區空間分佈圖。

關鍵詞：南勢溪集水區、不安定指數法、地理資訊系統、山崩潛感分析。

The Establishment of a Predictable Model for Potential Landslide Based on Dangerous Value Method in Nan-Shih Creek Watershed

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ABSTRACT　The dangerous value method is already applied in the analysis of susceptibility of landslide widely. The drawback of this method is it is hard to define a threshold for the dangerous value. The present study tries to solve this problem. A confused matrix is used to set up this threshold by defining the rate of erroneous judgement and further to grade in accordance with its threshold of value. Several related models are raised to compare and to discuss their suitability. A refine model is also established based on those proposed models, After comparing the results predicted by refine model and the previous models, a better prediction is found by using new refined model.

Key Words: Nan-Shih Creek watershed, dangerous value method, geographical information system, landslide susceptibility analysis analysis.

一、前　　言

台灣由於受地形影響，山地陡峻而河川急短，再加上雨量多、颱風多，水土災害一直都是最主要的天

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