

地理統計應用於臺北市山坡地雨量站網評估與調整

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摘要 土石流災害發生受到降雨的強度和空間變異性影響。因此，了解降雨的空間變異性特性是土石流減災的先決條件。在本研究中，針對不同降雨類型使用地理統計進行降雨空間變異特性分析，分別對夏季對流雨、颱風、梅雨和冬季鋒面雨進行分析，選取較適合的降雨空間變異特性。結果發現夏季對流雨的影響範圍最小(約 55 公里)，代表其空間變異大，而其他三種降雨類型影響範圍較大(約 69 公里)則空間分布較均勻。因此，在研究中建議以夏季對流雨的空間變異特性，進行台北市雨量站網的評估。

關鍵詞：克利金、地理統計、雨量站網。

Rainfall Network Evaluation and Augmentation Using Geostatistics – An Example in Taipei City

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ABSTRACT The intensity and spatial variability of storm rainfalls play an essential role in occurrences of debris flows. Thus, understanding and characterizing the spatial variability of storm rainfalls is a prerequisite for debris flows mitigation. In this study, we investigate the spatial variabilities of rainfalls induced by different storm types using geostatistics. Summer convective storms are found to exhibit higher degree of rainfall spatial variability than typhoons, Mei-Yu and winter frontal systems. The semi-variogram of hourly rainfalls of convective storms was then used to assist in evaluation and augmentation of an existing raingauge network in Taipei.

Key Words: Kriging、Geostatistics、Raingauge network.

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