

## 河流縱剖面坡降指數的量化分析：以中台灣濁水河流域為例

李準勝<sup>[1]</sup> 蔡龍玲<sup>[2]</sup> 鄭雅萍<sup>[3]</sup>

**摘要** 本研究針利用河流縱剖面的坡降指數來探索濁水河流域構造地形演化上的意義。研究結果顯示，彰化斷層和雙冬斷層間的主流河道呈現較高的坡降指數，表示濁水溪下游河道的大地構造運動相當活躍，也說明在濁水溪流域下游地區的構造地形地質時間演化上，大地構造運動因子的影響性高於地質岩性因子。同樣位於梨山斷層帶上，卡社溪、丹大溪和郡大溪是為構造活動異常高區或是差異性的地盤上昇，主流的上游和萬大溪則較不顯著，顯示梨山斷層南側相較於北側的大地構造變動趨勢較為顯著。標準化坡降指數異常分布與崩塌區位的對照沒有直接關連性。

**關鍵詞**：濁水溪、河流縱剖面、坡降指數。

### **A Quantitative Analysis of Gradient Indices for Longitudinal River Profiles: A Case Study of the Choushui River, Central Taiwan**

Chun-Sheng Lee<sup>[1]</sup> Louis L. Tsai<sup>[2]</sup> Ya-Ping Jheng<sup>[3]</sup>

**ABSTRACT** The purpose of this study is to explore implication in the evolution of tectonic geomorphology for the Choushui River watershed by using gradient indices of longitudinal profiles. High gradient indices in the area of the channel between Changhua Fault and Shuangtung Fault indicate that tectonic movement is active. In addition, tectonic movement, not geological lithology, is the important factor for the evolution in tectonic geomorphology of the Choushui River watershed. Similarly, on the Lishan fault zone, high abnormality of tectonic activity or differential uplift occurred in the Kashe River, Danda River and Junda River, but not in the area upstream of the main Choushui River and Wanda River. This shows that the south zone of the Lishan fault is significantly more tectonically active than the north zone, and normalized gradient indices are not directly related to the landslide areas.

**Key Words:** Choushui River, Longitudinal profile, Gradient Indices.

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[1] 中央大學地球物理研究所博士班研究生(通訊作者)

Ph.D. Student, Graduate Institute of Geophysics, National Central University, Jhongli (32001), Taoyuan County, Taiwan, R.O.C. (Corresponding Author)  
E-mail: brucelee19660617@gmail.com

[2] 中央大學應用地質研究所副教授

Associate Professor, Graduate Institute of Applied Geology, National Central University, Jhongli (32001), Taoyuan County, Taiwan, R.O.C.

[3] 永勝工程顧問有限公司工程師

Engineer. Ever-Win Engineering Consultant CO., LTD., Taiping (41155), Taichung County, Taiwan, R.O.C.