

## 不同降雨強度下雨滴粒徑與速度特性-以屏東老埤地區為例

周佳翰<sup>[1]</sup> 江介倫<sup>[2]\*</sup> 林紘立<sup>[3]</sup>

**摘要** 在降雨沖蝕的研究中降雨型態與特性是很重要的因子，由於 Laser Precipitation Monitor by THIES 雨滴譜儀可以計算各種降雨類型的強度、總量粒徑、速度等資訊，以利各種必要的分析，繪出雨滴譜圖。本研究系利用此儀器安裝於屏東科技大學觀測該地區 2013 年 10 月至 2014 年 9 月期間各場降雨之降雨粒徑與速度，分析各場有效降雨資料，以降雨粒徑趨勢線來看，隨著速度的增加，雨滴粒徑越大，由各場雨之瞬間降雨強度對雨滴粒徑進行迴歸分析，並比較降雨強度 10 至 200mm/hr 時，其粒徑關係曲線，以了解屏東老埤地區之降雨特徵。

**關鍵詞：**雨滴譜儀、降雨粒徑、降雨沖蝕。

## Characteristics of Drop Size and Velocity of Various Rainfall Intensities – a Case Study in Pingtung Laopi Area

Chia-Han Chou<sup>[1]</sup> Jie-Lun Chiang<sup>[2]\*</sup> Hung-Li Lin<sup>[3]</sup>

**ABSTRACT** Laser Precipitation Monitor by THIES can calculate various kinds of rainfall intensity, drop size, velocity and draw a raindrop size distribution. In this study, we use this instrument which is installed at National Pingtung University of Science and Technology to observe the diameter and velocity of each rainstorm from October 2013 to September 2014. We analyzed the data for each effective rainfall event. The results show that raindrop velocity increases as the diameter of raindrop increases. According to each moment of rainfall intensity and rain raindrop diameter, we did regression analysis and compared the curves of the rainfall intensity from 10 to 200mm / hr for improving the understanding of the features of rainfall in Pingtung Laopi area.

**Key Words :** LPM raindrop disdrometer, Raindrop size, rainfall erosivity.

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- [1] 國立屏東科技大學水土保持系研究生  
Graduate student, Dept. of Soil and Water Conservation, National Pingtung University of Science and Technology, Pingtung 912, Taiwan
- [2] 國立屏東科技大學水土保持系副教授 (\* 通訊作者 E-mail: [jlchiang@email.npust.edu.tw](mailto:jlchiang@email.npust.edu.tw))  
Associate Professor, Dept. of Soil and Water Conservation, National Pingtung University of Science and Technology, Pingtung 912, Taiwan
- [3] 國立屏東科技大學水土保持系大學生  
Undergraduate student, Dept. of Soil and Water Conservation, National Pingtung University of Science and Technology, Pingtung 912, Taiwan