

台大大氣自製聲音雨量筒的實驗與AI資料分析初步成果

preliminary testing result of NTUAS acoustic raingauge

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摘 要

本文說明臺灣大學大氣科學系首創的聲音雨量筒軟硬體以及2026 年2-6月戶外實驗數據成果，透過 AI (Claude Sonnet 4.5)協助分析聲音檔案和同地同步觀測的傾斗式傳統雨量計實測資料，顯示其期進階運用發展的可能性。

關鍵字：聲音雨量筒 傾斗式傳統雨量計 AI (Claude Sonnet 4.5)

Abstract

This study describes the hardware and software of the pioneering acoustic rain gauge developed by the Department of Atmospheric Sciences at National Taiwan University, along with the outdoor experimental data collected from February to June 2026. By utilizing AI (Claude Sonnet 4.5) to assist in analyzing the audio files and concurrent, co-located field data from a traditional tipping-bucket rain gauge, the results demonstrate its potential for advanced operational development

Key words : Acoustic rain gauge, tipping bucket raigage, AI (Cloude Sonnet 4.5)

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