自動化判斷數值模式鋒面及槽脊方法
Auto objective fronts, troughs and ridges in NWP model

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摘　　要

　　自動化判斷鋒面系統，美國已有成熟的研究，歐洲中期天氣預報中心(ECMWF)也有數十年的發展和作業化，而臺灣區域的鋒面系統(梅雨鋒、冷鋒)和歐美的鋒面系統(冷暖鋒、囚錮鋒)有部分不同的特性，如臺灣於五、六月時特有的梅雨季鋒面，就和中緯度鋒面在物理特性有所不同。

　　作者參考ECMWF中緯度鋒面判斷方法嘗試改進，並應用本局全球數值模式預報進行全球的鋒面判斷，經過幾次改版修正後，已經可以提供多層鋒面和槽脊判斷，期望能夠做為天氣分析的參考之一。

　　槽脊判斷是參考地理資訊系統山峰山谷判斷方式進行開發，提供做為較客觀的槽脊判斷標準。

關鍵字：鋒面、槽脊線

Abstract

The frontal objective method was well research in the US. and the European operation center. But there is some difference between Taiwan's frontal system and high latitude country. Mei-yu front is not clear with thermal gradient, it should use more process to detective object. In this report, we will implement the frontal objective method in CWB, and modify it to match mei-yu front.

Also, we developed through and ridge automatic detection method from Geographic Information System. This method will help forecaster and researcher to easily identify weather events.

Key words: front, through and ridge