

# 地面能量收支對區域模式地面溫度預報的影響

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## 摘 要

地球主要的能量來源來自太陽，當太陽短波輻射進入地球大氣系統後會因雲、空氣粒子、懸浮微粒和不同地表類型而產生吸收、反射、散射等輻射過程，進而影響到地表能量平衡。由於中央氣象局區域模式在臺灣地區地面溫度預報有明顯的冷偏差，為了解地面能量收支對地面溫度預報地影響，本研究將分析台灣地區地面之能量收支平衡，並使用本局利用同步衛星觀測資料所反演之日射量資料，對模式輻射預報進行校驗分析，以期作為後續模式溫度預報改進的參考。

關鍵字：能量收支

## The Impact of Surface Energy Budget on Regional Model Surface Temperature Prediction

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### Abstract

The energy source of the earth primarily comes from the sun. The shortwave radiation emitted by the sun will be absorbed, reflected, scattered by the clouds, air particles, particulate matter, and different surface types when it enters into the atmosphere. Based on the regional model operated by Central Weather Bureau, Since there are systematically cold bias at surface temperature prediction from the CWB operational regional model. To understand the impact of surface energy budget on surface temperature prediction, a verification analysis between the model radiation prediction and retrieved radiation data from the Himawari-8 geosynchronous satellite is conducted that is expected to be a reference for the model improvement on temperature prediction.

Keywords: Energy budget