**極度降溫對颱風強度發展之影響**

Impacts of extreme drop of SST on TC intensity changes

**摘要**

極度降溫(extreme drop)被認為可能是影響颱風強度下修非常關鍵的因素，此研究目的旨在透過長期颱風特性資料(2000-2019)、微波觀測海表降溫資料以及海洋環境背景資料系統性理解下列問題，(1)釐清極度降溫對颱風強度變化之影響，(2)了解怎樣的背景環境底下會導致極度降溫的生成(控制極度降溫形成之重要海洋環境因子)，以及 (3)分析極度降溫對其他颱風特性(如: 颱風內部結構，颱風移動速度，颱風移動軌跡、降雨以及颱風大小等)可能造成之影響，最終目的為藉此進一步改善數值模擬對海表極度降溫範例之模擬掌握能力。

**Abstract**

Extreme drop (ED) of Sea Surface Temperature (SST) is crucial for the consequential intensity development of a tropical cyclone (in particularly for the core region). However, so far, it is not clear that how sensitive the ED impact the storm intensity changes. In this study, more than 20 years storm/oceanic characteristics and SST drops data provided by microwave sensors in western North Pacific were used to elucidate following issues, including (1) how sensitive the ED influence the TC intensity changes, (2) favorable environments/mechanisms for ED arising, and (3) impact of ED on other TC characteristics, such as inner-core structures, translational speed, track, rainfall and TC sizes.