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Special Topic on Key Dynamic and Thermodynamic Processes and Prediction of Typhoon (KPPT)

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- 1941 **Discrepancies in Simulated Ocean Net Surface Heat Fluxes over the North Atlantic**
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- 1956 **Reexamination of the Relationship between Tropical Cyclone Size and Intensity over the Western North Pacific**
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- 1969 **Sub-seasonal Prediction of the South China Sea Summer Monsoon Onset in the NCEP Climate Forecast System Version 2**
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On the cover

Prediction of tropical cyclone track, intensity, and structure is extremely challenging due to our limited understanding of key dynamic and thermodynamic processes, multi-scale interactions among different physical processes and various geophysical components, limited representations of physical processes in numerical models, a large gap between the observed and simulated scales, and suboptimal data assimilation strategies and initialization/forecast techniques. Through the implementation of the Key Dynamic and Thermodynamic Processes and Prediction of Typhoon (KPPT) project, a series of studies focusing on the dynamics, physics, data assimilation, and prediction of tropical cyclones has been conducted. For details, please see the papers included in the special topic on the KPPT.