## **Abstract for Third International Workshop on Tropical Cyclone Landfall Processes**

**Title**: Effects of topography on tropical cyclone tracks

**Authors**: Chi Kit Tang and Johnny C L Chan

**Affiliation**: School of Energy and Environment, City University of Hong Kong

The effects of topography on tropical cyclone (TC) tracks have been investigated using idealised simulations of TC-like vortices with real topography of Taiwan, the Philippines and China. It is found that through the vorticity budget equation, the interaction between the TC circulation and topography generates cyclonic and anticyclonic circulations that can affect the track of a TC as it approaches the topography. Various experiments indicate that depending on the location of the TC relative to all topographies (both near the TC and far away from the TC), these circulations can combine together to modify the track of the TC substantially. The physical mechanisms of such modifications will be presented.