

Development of a high-resolution cloud-resolving model over complex topography (TaiwanVVM)

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In this study, we present idealized simulations of a high-resolution (500 m in the horizontal) vorticity equation based cloud resolving model covering the whole Taiwan area (TaiwanVVM) with the following features: Topography is represented with a partial-step immersed boundary method. Surface processes are represented with NOAH land surface model. Microphysics is updated with predicted parcel properties scheme (P3). Idealized simulations of afternoon thunderstorm will be presented to evaluate the precipitation hotspots.