利用區域海洋模擬系統研究 2013 年海燕颱風對菲律賓沿岸引起暴潮之過程 A study on the storm surges along the Philippine coast caused by Typhoon Haiyan (2013) using the regional ocean simulation system

Super Typhoon Haiyan made landfall in the central Philippines in 2013, triggering a storm surge with a height of more than six meters. It was one of the strongest storm surges in decades striking Leyte Island. More than 6,000 people died in the event. Taiwan is located in the northwest Pacific, where is a hot spot region of typhoon striking. Coastal areas are inevitably threatened by storm surges. However, there is generally limited researches and understanding of storm surges in Taiwan currently. This study aims to further investigate the storm surge caused by Haiyan, using the Regional Ocean Modeling System (ROMS) with atmospheric field output from the CRESS cloud-analytic storm model. The system will be used to simulate the changes in storm surge intensity in different scenarios to obtain the key factors affecting the storm surge in this event and improve the quality of the storm surge forecast.