Inconsecutive "Sandwich Structure" pattern for high temperature warm water in the Western Pacific warm pool

<u>Fei Huang</u>[†]; Lei Zhang; Ting-Ting Fan; Bin Wang [†]Ocean University of China, China, People's Republic of Leading author: <u>huangf@ouc.edu.cn</u>

An inconsecutive high frequency distribution with "Sandwich Structure" pattern for high temperature warm water (HTWW) warmer than 29°C in the western Pacific warm pool (WPWP) was found using Tropical Rainfall Measuring Mission (TRMM) sea surface temperature (SST) data, a relatively high resolution data in space. This phenomenon only shows up in boreal summer (June to September), and becomes obvious when WPWP SST is higher than 29°C. As observed, East Asian summer monsoon (EASM) impinges on Philippine Islands in June, which has important impact on the formation and maintenance of the "Sandwich Structure". Winds affect the distribution of SST in two ways: one by increasing the local latent heat flux, and the other way is transporting cold water towards southeast of Philippine Islands.