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Rainfall Characteristics from Convection-Permitting Downscaling over the Western Maritime Continent

Venkatraman Prasanna, Sandeep Sahany, Aurel F. Moise, Xin Rong Chua, Gerald Lim, Muhammad E. Hassim, and Chen Chen
Centre for Climate Research Singapore (CCRS), Singapore (prasa_arnala@yahoo.com)

Long-term convection-permitting dynamical downscaling has been carried out over the western Maritime Continent, using the Singapore Variable Resolution Regional Climate Model (SINGV-RCM) at 8km and 2km spatial resolutions. The SINGV-RCM is forced with ERA-5 reanalyses data for a 36-year period (1979-2014) at 8km resolution over Southeast Asia (79E-160E;16S-24N) with regular update of the sea surface temperature at 6-hr interval; further, this 8km domain simulation is used for forcing a smaller domain over the western Maritime continent at a resolution of 2km (93E-110E;7.2S-9.9N) for a 20-year period (1995-2014). Rainfall characteristics including the diurnal cycle and extremes from the two simulations evaluated against satellite retrievals, and the added value from dynamical downscaling will be presented.