



Inter-annual variability and dynamics of cold-tongue in the South China Sea

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The South China Sea (SCS) surface circulation is mainly forced by seasonally varying monsoon winds and flow through the Luzon Strait. In winter, positive wind curl (due to the northeasterly winds) in the southern half of SCS drives a cyclonic gyre. The strong western boundary current south off Vietnam on the continental slope separates the Sunda Shelf to the west and deep SCS basin to the east. The advection of cold water due to the slope current results in a unique cold tongue in Sea Surface Temperature (SST) from November to February. The inter-annual variability of cold-tongue the in the SCS is investigated on the basis of daily NCEP OISST version-2 dataset from 1982 to 2012. The evolution, growth and decay of the cold tongue during the period are addressed using the OISST and ERA-interim surface wind datasets. The formation and termination of this cold tongue has significant correlation with the El Nino phenomenon in the Pacific Ocean.