Geophysical Research Abstracts
Vol. 15, EGU2013-13266, 2013
EGU General Assembly 2013

Reconstruction of incomplete sea surface temperature data in the Indonesian seas

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Sea surface temperature observation using satellite provides a synoptic view of the ocean's state. However data retrieved from satellite observation is often covered by clouds, resulting in incomplete dataset with missing observation. In this study we perform reconstruction of incomplete sea surface temperature using a method based on empirical orthogonal functions decompositions. The method was applied to the Indonesian seas region, where cloud coverage is known to be high. The reconstruction provides the modes that governed the variability of SST in the region, where the dominant modes found from the reconstruction describes the seasonal cycle in the sea surface temperature, and the large scale oceanic sea surface temperature gradient in the region.