



The role of SST in monsoon onset: BOB as a special case

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We study the role of sea surface temperature in monsoon onset and find that the abrupt shift of the warm axis of sea surface temperature could be a useful signal for monsoon onset. The result indicates that the abrupt northward jump of the warmest SST axis over Bay of Bengal (BOB) in April, which basically leads BOB summer monsoon onset by two pentads, provides a good omen for BOB summer monsoon onset. The CAM3 experiment also shows this point. The case study of the BOB summer monsoon onset in 2008 and 2009 further validates the availability of the omen for predicting BOB summer monsoon onset.