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Fluctuation of sea surface temperature in the Indian Ocean during the period of 1971-1990

N. B. P. Punyadeva[1] And W. L. Sumathipala[2]
[1]NARA, Crow island, Mattakuliya, Colombo 15, [2]Department of physics, Open university of Sri Lanka, Nawala, Nugegoda,

From the results, it was evident that bi-annual and annual oscillation peaks are strong in the study regions; however 6-month oscillation was dominant. In addition there was a spectral peak, which follows 60-month cycle. It is found that 60-month oscillation of SST is greater than that of 6-month fluctuation in several regions of the study domain. However, a strong 60-month fluctuation of SST was observed in the central Indian Ocean. There is an increase of SST by 0.33 0c was observed in the ocean surrounding Sri Lanka after the year 1978. However, decadal SST in seventies is different from the decadal SST in eighties in the study domain. A sudden increasing trend of SST was also seen in the region RX1 after the year 1977. It is observed that there is a decreasing trend in SST after occurrence of an El-Nino event. This decreasing of SST persists roughly 25 to 35 months. Further, there is an increasing trend of SST is observed from the end of the minimum SST and this increasing trend towards the next El-Nino event take place. This increasing trend takes 30 to 40 months to reach its maximum. There is a roughly 5-year fluctuation in SST in the region i.e. between any consequent two maximum SST or two minimum SST events. It is clearly noted that when El-Nino takes place, the SST values are high for the relevant year considered.