



On Sub-ENSO variability

M. Latif (1), N. Keenlyside (1) and A. Duerkop (1)

(1) Leibniz-Institute for Marine Sciences

Observations indicate the existence of a variability mode in the Tropical Pacific with a period of about 16-18 months. This mode existed throughout the 20th century, but it has undergone a strong amplitude modulation. The sub-ENSO mode was particularly strong from 1990 onwards. The analysis of the data of the TOGA-TAO array indicate that the sub-ENSO mode contains elements of both ENSO and the annual cycle, with eastward propagating heat content anomalies along the equator and westward propagating SST anomalies. It is discussed whether the sub-ENSO mode can be explained by linear dynamics or if it is an inherently non-linear phenomenon.