

SEA SURFACE TEMPERATURE DIPOLES IN ATLANTIC OCEAN IN COUPLED MODELS (AR4): COMPARISONS WITH OBERVATIONS

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Abstract

The Earth's oceans with a surface coverage of more than 70% of the planet and due to the high heat capacity of water, has in its thermal variations a climatic influence in many areas of the globe. In particular, the Atlantic Ocean has thermal variability modes in intraseasonal seasonal, interannual and decadal scales that affect the climate from the North Atlantic, Caribbean, West Africa, Northeast Brazil, the Gulf of Guinea Region and Southeast Atlantic (region Angolan resurgence). The main dipoles in the Atlantic are the meridional dipole sea surface temperature (SST), also known as southern SST gradient, equatorial SST dipole and dipole SST South Atlantic. This study aims to analyze the stations summer (November-January), autumn (February to April), winter (May to July) and spring (August to October) as of the coupled models of the IPCC AR4-behaved compared the observations (1979-2000). In this preliminary analysis were used some statistical metrics as linear correlation, estimated absolute and squared errors, and Wavelet analysis to investigate average peak daily energy at each station.

Keywords: dipoles of TSM, Atlantic Ocean, IPCC