



Hurricanes interaction with the Arctic Climate

e. scoccimarro, s. gualdi, and a. navarra
(scoccimarro@bo.ingv.it)

In recent years increasing interest has been put on the role that intense Tropical Cyclones can play in the climate system. The following study is aimed at highlighting the effects of strong Tropical Cyclones over the Tropical Atlantic on the mean climate. Their composite effect on the surface winds is made apparent by a wide cyclonic perturbation that affects a large portion of the Atlantic tropical Ocean. Teleconnection patterns, which are visible in the Sea Level Pressure anomalies associated with this Tropical Composite Cyclone, appear to link the activity of the hurricanes to the Arctic Ocean. A significant anticorrelation between the energy dissipated by hurricanes in the Tropical atmosphere and the sea ice cover along the Transpolar Drift Stream path, has also been found.