Geophysical Research Abstracts
Vol. 13, EGU2011-8923, 2011
EGU General Assembly 2011

Impact of the Atlantic-Pacific Niños connection over Sahelian rainfall

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Recent studies have found that, from the 70's, the Atlantic and Paficic Niños appear anticorrelated in a way that the Atlantic Niño is able to trigger oceanic processes which lead the development of a Pacific la Niña during the next winter. From this decade and during the summer, the Atlantic Niño shares its variability with the Pacific El Niño and a warming in the tropical Indian ocean (and the opposite).
In this work, we study the impact of this inter-basin connection on Sahelian rainfall, by analyzing a set of three ensemble-simulations performed with two AGCMs. The simulations are designed adding to the climatological SSTs the anomalous SST pattern corresponding to the global mode described above (GM experiment), as well as only the Atlantic (AT experiment) or IndoPacific (IP experiment) part of the mode.
The results of the multi-model ensemble mean of these simulations show that the concomitant action of the Atlantic and Pacific SST anomalies add their impacts on West Africa (WA) rainfall, producing an anomalous pattern of precipitation with a one-signed structure over the whole WA region during the monsoon peak.