Geophysical Research Abstracts, Vol. 9, 10488, 2007
SRef-ID: 1607-7962/gra/EGU2007-A-10488

Assessment of the main SST-SLP coupled mode at interannual and interdecadal timescales in the South Pacific as simulated in the IPCC's XX Century.

A. Montecinos (1) and H. Fuenzalida (2)

(1) Department of Geophysics, University of Concepcion, Concepcion, Chile, (2) Department of Geophysics, University of Chile, Santiago, Chile (amonteci@dgeo.udec.cl / Fax: 56-41-2220104)

The combined complex EOF (CCEOF) method is applied to the joint normalized sea surface temperature (SST) and sea level pressure (SLP) to assess the main SST-SLP coupled mode in the IPCC AR4 simulations of the twentieth-century climate. The study focuses on the assessment of ENSO (interannual) and El Niño-like (interdecadal) variability in the South Pacific. The analysis reveals the models capacity to reproduce the main interaction between SST and SLP along the tropical Pacific (Bjerknes' mechanism), at both timescales, and the teleconnections responsible of the variability of SST, rainfall and other variables in the west coast of South America.