

Climate Simulation over Northeastern Brazil using NCEP RSM97

Liqiang Sun

Antonio Divino Moura

International Research Institute for Climate Prediction/ Lamont-Doherty Earth Observatory of Columbia
University
Palisades, NY 10964-8000

David Ferran Moncunill

Vicente Silva Filhol

Emerson Mariano da Silva

Wagner Luis Barbosa Melciades

FUNCEME, Av. Rui Barbosa 1246, Bairro Aldeota
Fortaleza, CE 60.115-221, Brazil

Alexandre Araujo Costa

Ceara State University, Fortaleza, CE 60.115-221, Brazil

[Email: sun@iri.columbia.edu](mailto:sun@iri.columbia.edu)

The NCEP RSM with horizontal resolution of 60km nested with ECHAM4.5 AGCM over Northeast Brazil. An ensemble of 10 runs for the period of 1971 - 2000 was done. The interannual variability of circulation and precipitation is captured in most of years. Circulation and precipitation generated by RSM are compared with those of the ECHAM4.5 and observations. RSM is able to correct the low-level circulation bias introduced by ECHAM4.5 toward observation in many years. Not only did the spatial distribution of rainfall improved by using RSM, as one would expect with better resolved topography, but also that the local rainfall amount and frequencies were in better agreement with observations for many locations. More results will be presented at the meeting.