

**Poster:**

**CPTEC GCM and Eta Model verifications against Rondônia Reference site in Brazil**

**Sin Chan Chou<sup>1</sup>, Patricia V. Waldheim, Claudine P. Dereczynski<sup>2</sup>, José A. Marengo<sup>1</sup>**

1 Center for Weather Prediction and Climate Studies – CPTEC, National Institute for Space Research – INPE, Cachoeira Paulista, SP, 12630-000, Brazil

2 Federal University of Rio de Janeiro – UFRJ Rio de Janeiro, RJ, 21949-900, Brazil

Verification of CPTEC global and regional models forecasts against observation at the Rebio Jaru reference site is carried out for a dry period, between 1 July and 1 September 2001, within the EOP1. The Rebio Jaru is a forest site located in the Amazon region. Time series and mean diurnal cycle of precipitation and surface fluxes are shown for 24-h and 48-h forecasts. In the global model the incoming short wave radiation and net radiation were predicted closely to the observed values, however, this occurred with the large overestimate of deep clouds and precipitation. The partition of the available energy resulted in overestimate of the sensible heat fluxes and underestimate of the latent heat fluxes. The latent heat fluxes were large shortly after the rain, but decayed quickly. No clear improvement of the 48-h forecasts over the 24-h forecasts could be noticed. The Eta model forecasts of precipitation were very close to the observations; however, in the absence of deep clouds it largely overestimated the incoming short-wave radiation, which resulted in excessive net radiation. Consequently, the sensible heat fluxes and the latent heat fluxes were also overestimated. Small improvement of the 48-h forecasts over the 24-h forecasts could be noticed. Near surface temperature were overestimated by both models. Cloud treatment correction seems to be necessary in both models, whereas the global model also needs to correct the convective precipitation.