

Observed interannual variability of the organization of deep convection in tropics

Addisu Semie and Sandrine Bony

Laboratoire de Meteorologie Dynamique(LMD), CNRS (addisu.semie@lmd.jussieu.fr)

Deep convection exhibits a wide range of spatial organizations in the tropics. These organizations, as well as the role that they may play in climate, have been widely investigated using idealized modeling frameworks. Here, we extend this investigation by analyzing the organization of deep convection using long time series of geostationary satellite observations. We characterize the diversity and the variability of convective organizations in data using the recently introduced diagnostic tool called "organization index (Iorg)". Based on this index, we highlight different types of convective organization, and study their interannual variations over tropical oceans. Relationships among convective organization, sea surface temperatures and other environmental conditions will be discussed.