



## **Atmospheric dynamics over West Africa during the AMMA 2006 SOP campaign**

**F. Guichard** and J.-P. Lafore

CNRM-GAME (CNRS and Meteo-France)

This talk will give an overview of some major features of the atmospheric dynamics of the 2006 West African monsoon, within which the AMMA SOP campaign took place. It will include some discussion regarding how this particular monsoon season compares and contrasts with recent ones. The collected data will also be placed in the context of the atmospheric dynamics characterizing this particular period, with a focus on super-sites locations.

In short, at large scale, the mean dynamical structures are consistent with a 2006 monsoon season that did not dramatically depart from the climatology (ITCZ location,...). There was however a distinctive late onset of the monsoon in 2006. The northward shift of the monsoon flow was established in early July but moist precipitating convection did not fully start before mid-July. This feature may involve MJO activity and the heat low dynamics. The 2006 monsoon season is further characterized by significant intraseasonal variability. At synoptic scale, the -moderate- African easterly wave (AEW) activity showed notable intraseasonal fluctuations along the 4-month period (JJAS). The African easterly jet (AEJ) and especially the tropical easterly jet (TEJ) intensity display a 15-day mode of variability. There is also evidence of intraseasonal modulation of convective activity at regional scale. Concerning the type of mesoscale convective systems, it appears that fast-moving long-living mesoscale convective systems (MCS) were relatively less numerous in 2006 over the central Sahel and more numerous to the South of it compared to the past 7-year average. Overall, MCS duration was shorter.