

The West African monsoon dynamics: Intra-seasonal variability

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The variability of the monsoon intensity over West Africa at intra-seasonal time scales has been studied mostly in regard to synoptic variability associated to easterly waves. By using the daily frequency of rainfall data set from the IRD for the period 1968-1990, we extend the study of the intra-seasonal variability to time scales between 10 and 60 days through spectral analysis. Wavelet analysis applied each year to daily Sahelian rainfall indexes highlights the high intermittency of the intra-seasonal in this spectral window which seems to be related to active and inactive phases in the West African monsoon. The spatial patterns of the atmospheric circulation associated to these phases can be pointed out through composite analysis applied to NCEP/NCAR wind reanalyses.

Tuesday II (Keynote talk)