



## **The Influence of Soil Moisture on Sahelian Weather Systems**

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Recent results from the GLACE experiment (Koster et al. 2004) suggest that the West African monsoon region is one of the areas of the world where feedbacks between soil moisture and precipitation are strongest. Such feedbacks are likely to affect the characteristics of wet and dry spells within the rainy season. These results are based on an intercomparison of global models performing the same numerical experiment. Establishing the impact of soil moisture on the atmosphere from observations is a more difficult task. Evidence from surface, atmospheric and remotely sensed observations will be presented showing the importance of near-surface soil moisture from recent rainfall on the Sahelian surface energy balance, and in turn, the evolution of the atmosphere at a range of spatial scales.