



## **Stability of banded vegetation patterns under limited soil moisture storage capacity and different rainfall regimes**

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Banded vegetation patterns form on hillsides of semiarid catchments due to the delicate equilibrium of soil moisture and biomass that may become unstable under water scarcity conditions. This study addresses the combined influence of some relevant soil characteristics and of the precipitation time distribution on vegetation patterns and their patchiness in semiarid environments. Soil related process that are relevant in this context such as soil moisture advection and diffusion and limited water storage were analyzed through a Turing stability model explicitly formulated to focus on the above phenomena.