



Modeling scale-free vegetation in drylands

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Patterned vegetation is characteristic for water-limited areas and both periodic and scale-free distributions of vegetation patch sizes have been reported. Using a simple common mathematical modeling approach we study the physical and ecological conditions for the emergence of both types of patterns. By drawing an analogy between the vegetation model and a simpler inhibitor-activator model we discuss if scale-free patterns of dryland vegetation represent asymptotic patterns or more likely long transients.