Pattern migration (or not?) of dryland vegetation stripes

Lukas Eigentler

1. Abstract

Striped vegetation patterns are a ubiquitous feature of semi-arid regions and are a prime example of a self-organisation principle in ecology. Stripe formation is driven by short-range facilitation among plants and long-range competition for water on a sloped terrain. Field data from different pattern sites show that stripes are either stationary, or slowly moving upslope. In this talk, I show how mathematical modelling and analysis comprising analytical and numerical tools for investigating periodic travelling wave existence and stability proposes a possible

resolution for these contrasting field data.