

1116-35-2868

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Transient states in vegetation pattern model of semi-arid ecosystems.

The purpose of this talk is to present and analyze a PDE model for macro-scale study of vegetation propagation/degradation in semi-arid ecosystems. I will focus on structural stability and transitions of localized patterns I will also discuss strategies in qualitative parameter approximation for such systems. Such an analysis is useful in determining uncertainty regions, finding tipping points, and revealing other hidden dynamics. (Received September 22, 2015)