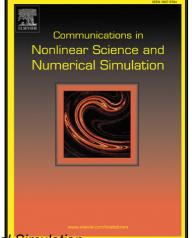
Accepted Manuscript

A network landscape model: stability analysis and numerical tests

E. Bonacini, M. Groppi, R. Monaco, A.J. Soares, C. Soresina

PII:\$1007-5704(17)30013-8DOI:10.1016/j.cnsns.2017.01.013Reference:CNSNS 4087



To appear in: Communications in Nonlinear Science and Numerical Simulation

Received date:23 June 2016Revised date:18 December 2016Accepted date:9 January 2017

Please cite this article as: E. Bonacini, M. Groppi, R. Monaco, A.J. Soares, C. Soresina, A network landscape model: stability analysis and numerical tests, *Communications in Nonlinear Science and Numerical Simulation* (2017), doi: 10.1016/j.cnsns.2017.01.013

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights

- A network mathematical model for an environmental system is proposed.
- Each node represents a Landscape Unit (LU), described by a system of ODEs.
- Evolution of bio-energy production and percentage of green areas is investigated.
- Existence, stability and bifurcations of equilibrium states are studied.
- Network dynamics follows from qualitative analysis of a proper reduced 2D system.

Download English Version:

https://daneshyari.com/en/article/5011620

Download Persian Version:

https://daneshyari.com/article/5011620

Daneshyari.com