



Bioevaluation of World Transport Networks

Andrew Adamatzky

Download now

[Click here](#) if your download doesn't start automatically

Bioevaluation of World Transport Networks

Andrew Adamatzky

Bioevaluation of World Transport Networks Andrew Adamatzky

Slime mould *Physarum polycephalum* is a monstrous single cell well known for its task-solving abilities — solves computational geometry and logical problems, navigates robots and generates music.

The slime mould could also build motorways, highways and expressways. It is used to analyse transport networks of Africa, Australia, Belgium, Brazil, Canada, China, Germany, Iberia, Italy, Malaysia, Mexico, The Netherlands, UK and USA. The largest cities are represented by oat flakes and the slime mould is inoculated in a capital. When all oat flakes are covered by the slime mould, the structure of the protoplasmic networks formed are analyzed. In the laboratory experiments and theoretical analyses, intriguing country-specific properties of the motorway networks are uncovered and compared with the man-made and slime mould networks. They are studied as proximity graphs, leading to hierarchies of complexity and bio-rationality of the motorways.

The book will inspire novel and original thoughts, paradigms and approaches for re-evaluation of historical findings on the emergence of ancient roads and will help to design future transcontinental pathways. The book is self-contained and does not require any special training or knowledge. This lavishly illustrated text will be appreciated by readers from all walks of life.

The Wisdom of Slime - New York Times (121 KB)

Contents:

- Introduction (*Andrew Adamatzky*)
- Methods: How We Conducted Experiments and Analysed Their Results (*Andrew Adamatzky*)
- Trans-African Highways (*Andrew Adamatzky and Anne Kayem*)
- Tracing Historical Development of Australian Highways (*Andrew Adamatzky and Mikhail Prokopenko*)
- Belgian Transport Networks: Redundancy and Dissolution (*Andrew Adamatzky, Bernard De Baets and Wesley Van Dessel*)
- Brazilian Highways from Slime Mould's Point of View (*Andrew Adamatzky and Pedro P B De Oliveira*)
- Trans-Canada Slimeways: From Coast to Coast to Coast (*Andrew Adamatzky and Selim G Akl*)
- Slime Mould Imitates Highways in China (*Andrew Adamatzky, Xin-She Yang and Yu-Xin Zhao*)
- Schlauschleimer auf Autobahnen: The Case of Germany (*Andrew Adamatzky and Theresa Schubert*)
- Vie Physarale: Roman Roads With Slime Mould (*Emanuele Strano, Andrew Adamatzky and Jeff Jones*)
- Malaysian Expressways: Is There a Logic Behind Them? (*Andrew Adamatzky, Zuwairie Ibrahim, Amar Faiz Zainal Abidin and Badaruddin Muhammad*)
- *Physarum Narcotráficum*: Mexican Highways and Slime Mould (*Andrew Adamatzky, Genaro J Martinez, Sergio V Chapa-Vergara, René Asomoza-Palacio and Christopher R Stephens*)
- *Physarum* in The Netherlands: Responding to the Flood (*Andrew Adamatzky, Michael Lees and Peter M A Sloom*)
- Rebuilding Iberian Motorways with Slime Mould (*Andrew Adamatzky and Ramon Alonso-Sanz*)
- United Kingdom Road Planning with Slime Mould (*Andrew Adamatzky and Jeff Jones*)
- Slimy Interstates in the USA (*Andrew Adamatzky and Andrew Ilachinski*)
- World Colonisation and Trade Route Formation (*Andrew Adamatzky*)
- Biorationality of Motorways (*Andrew Adamatzky, Selim Akl, Ramon Alonso-Sanz, Wesley van Dessel,*

Zuwairie Ibrahim, Andrew Ilachinski, Jeff Jones, Anne V D M Kayem, Genaro J Martínez, Pedro P B de Oliveira, Mikhail Prokopenko, Theresa Schubert, Peter Slood, Emanuele Strano and Xin-She Yang)

Readership: Computer scientists, road planners, mathematicians, physicists, chemists and nonlinear scientists.



Download [Bioevaluation of World Transport Networks ...pdf](#)



Read Online [Bioevaluation of World Transport Networks ...pdf](#)

Download and Read Free Online Bioevaluation of World Transport Networks Andrew Adamatzky

From reader reviews:

Charles Wilkerson:

Book is actually written, printed, or created for everything. You can learn everything you want by a book. Book has a different type. We all know that that book is important issue to bring us around the world. Next to that you can your reading talent was fluently. A e-book Bioevaluation of World Transport Networks will make you to always be smarter. You can feel a lot more confidence if you can know about every little thing. But some of you think that will open or reading any book make you bored. It is far from make you fun. Why they might be thought like that? Have you looking for best book or suitable book with you?

Edward Salazar:

This Bioevaluation of World Transport Networks book is not really ordinary book, you have it then the world is in your hands. The benefit you obtain by reading this book is usually information inside this e-book incredible fresh, you will get info which is getting deeper you actually read a lot of information you will get. This specific Bioevaluation of World Transport Networks without we know teach the one who examining it become critical in imagining and analyzing. Don't always be worry Bioevaluation of World Transport Networks can bring if you are and not make your tote space or bookshelves' come to be full because you can have it inside your lovely laptop even cellphone. This Bioevaluation of World Transport Networks having good arrangement in word along with layout, so you will not really feel uninterested in reading.

Patricia Stewart:

This book untitled Bioevaluation of World Transport Networks to be one of several books that will best seller in this year, that is because when you read this book you can get a lot of benefit into it. You will easily to buy this book in the book store or you can order it through online. The publisher on this book sells the e-book too. It makes you more easily to read this book, since you can read this book in your Touch screen phone. So there is no reason for you to past this publication from your list.

Dominique Rigney:

On this era which is the greater particular person or who has ability in doing something more are more special than other. Do you want to become one among it? It is just simple strategy to have that. What you must do is just spending your time not much but quite enough to have a look at some books. Among the books in the top collection in your reading list is Bioevaluation of World Transport Networks. This book and that is qualified as The Hungry Hillside can get you closer in getting precious person. By looking upward and review this reserve you can get many advantages.

**Download and Read Online Bioevaluation of World Transport
Networks Andrew Adamatzky #MP1TJXC Y4AF**

Read Bioevaluation of World Transport Networks by Andrew Adamatzky for online ebook

Bioevaluation of World Transport Networks by Andrew Adamatzky Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Bioevaluation of World Transport Networks by Andrew Adamatzky books to read online.

Online Bioevaluation of World Transport Networks by Andrew Adamatzky ebook PDF download

Bioevaluation of World Transport Networks by Andrew Adamatzky Doc

Bioevaluation of World Transport Networks by Andrew Adamatzky Mobipocket

Bioevaluation of World Transport Networks by Andrew Adamatzky EPub