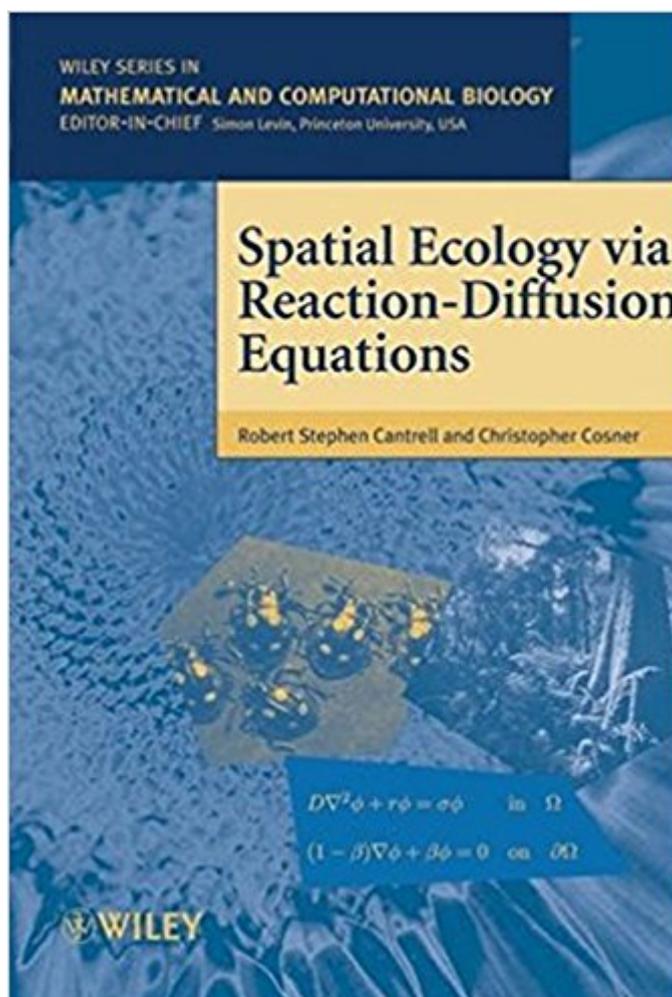The book was found

Spatial Ecology Via Reaction-Diffusion Equations

Synopsis

Many ecological phenomena may be modelled using apparently random processes involving space (and possibly time). Such phenomena are classified as spatial in their nature and include all aspects of pollution. This book addresses the problem of modelling spatial effects in ecology and population dynamics using reaction-diffusion models. * Rapidly expanding area of research for biologists and applied mathematicians * Provides a unified and coherent account of methods developed to study spatial ecology via reaction-diffusion models * Provides the reader with the tools needed to construct and interpret models * Offers specific applications of both the models and the methods * Authors have played a dominant role in the field for years Essential reading for graduate students and researchers working with spatial modelling from mathematics, statistics, ecology, geography and biology.

Book Information

Hardcover: 428 pages

Publisher: Wiley (November 7, 2003)

Language: English

ISBN-10: 0471493015

ISBN-13: 978-0471493013

Product Dimensions: 6.9 x 1.1 x 9.9 inches

Shipping Weight: 2 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars   1 customer review

Best Sellers Rank: #1,717,446 in Books (See Top 100 in Books)   #58 inÃ Â Books > Science & Math > Mathematics > Applied > Biomathematics   #1253 inÃ Â Books > Textbooks > Science & Mathematics > Biology & Life Sciences > Ecology   #4822 inÃ Â Books > Science & Math > Biological Sciences > Ecology

Customer Reviews

"Ã¢â ¬Â¦particularly attractive and useful for graduate students and other researchers who are interested in studying applications of reaction-diffusion theory to spatial ecology." (Mathematical Reviews, Issue 2007a) "Ã¢â ¬Â¦I would recommend this book to anyone who wants a well supported journey into the modern theory of partial differential equations and dynamic systemsÃ¢â ¬Â¦" (The Mathematical Gazette, March 2005)

Many ecological phenomena involve space as well as time and arise from a combination of random

and deterministic processes. Such phenomena include the effects of habitat fragmentation, which is a common result of human activity and a major problem in biological conservation. Reaction-diffusion models provide one approach to describing how random movements and deterministic interactions between individuals combine to influence the dynamics of populations and the structure of ecological communities. Spatial Ecology via Reaction-Diffusion Equations addresses the problem of modeling spatial effects in ecology and population dynamics using reaction-diffusion models. Provides broad coverage of a rapidly expanding area of research for ecologists and applied mathematicians. Provides a unified and coherent account of methods developed to study spatial ecology via reaction-diffusion models. Provides the reader with the tools needed to construct and interpret models. Includes specific applications of both the models and the methods described. Spatial Ecology via Reaction-Diffusion Equations provides a practical introduction to the subject for graduate students and researchers working in spatial modeling from mathematics, statistics, ecology, geography and biology.

Several authors have previously approached the subjecto of spatial population dispersal vai reaction-diffusion partial differential equations, but not in the way Mrs. Cantrell and Cosner have achieved in this excellent text. In fact this is the second volume I buy, since I made the mistake of lending my previous copy to another equally enthusiastic admirer who then refused to return my first copy. and how can I blame him?

Spatial Ecology via Reaction-Diffusion Equations Trekking in the Dolomites: Alta Via 1 And Alta Via 2 With Alta Via Routes 3-6 In Outline (Cicerone Guides) How Einstein gives Dirac, Klein-Gordon and Schrãf¶dinger: Deriving the Schrãf¶dinger, Dirac and Klein-Gordon Equations from the Einstein-Field-Equations via an Intelligent Zero Master The Mechanical Aptitude and Spatial Relations Test (Mechanical Aptitude and Spatial Relations Tests) Barron's Mechanical Aptitude and Spatial Relations Test, 3rd Edition (Barron's Mechanical Aptitude & Spatial Relations Test) Advanced Organic Chemistry: Part B: Reaction and Synthesis: Reaction and Synthesis Pt. B Trekking in the Dolomites: Alta Via 1 and Alta Via 2 (Cicerone Guides) Differential Equations and Boundary Value Problems: Computing and Modeling (5th Edition) (Edwards/Penney/Calvis Differential Equations) Fundamentals of Differential Equations (8th Edition) (Featured Titles for Differential Equations) Differential Equations: Computing and Modeling (5th Edition) (Edwards/Penney/Calvis Differential Equations) Applied Partial Differential Equations with Fourier Series and Boundary Value Problems (5th Edition) (Featured Titles for Partial Differential Equations)

Student Solutions Manual to accompany Boyce Elementary Differential Equations 10e & Elementary Differential Equations with Boundary Value Problems 10e [Differential Equations, Dynamical Systems, and an Introduction to Chaos [DIFFERENTIAL EQUATIONS, DYNAMICAL SYSTEMS, AND AN INTRODUCTION TO CHAOS BY Hirsch, Morris W. (Author) Mar-26-2012] By Hirsch, Morris W. (Author) [2012) [Paperback] Student's Solutions Manual for Fundamentals of Differential Equations 8e and Fundamentals of Differential Equations and Boundary Value Problems 6e Numerical Partial Differential Equations: Conservation Laws and Elliptic Equations (Texts in Applied Mathematics) (v. 33) Algebra Essentials Practice Workbook with Answers: Linear & Quadratic Equations, Cross Multiplying, and Systems of Equations: Improve Your Math Fluency Series Algebra Essentials Practice Workbook with Answers: Linear & Quadratic Equations, Cross Multiplying, and Systems of Equations (Improve Your Math Fluency Series 12) Transformations Of Coordinates, Vectors, Matrices And Tensors Part I: LAGRANGEÃ¢â¬â„¢S EQUATIONS, HAMILTONÃ¢â¬â„¢S EQUATIONS, SPECIAL THEORY OF RELATIVITY AND CALCULUS ... Mathematics From 0 And 1 Book 16) Partial Differential Equations of Mathematical Physics and Integral Equations (Dover Books on Mathematics) Diffusion-Weighted MR Imaging of the Brain