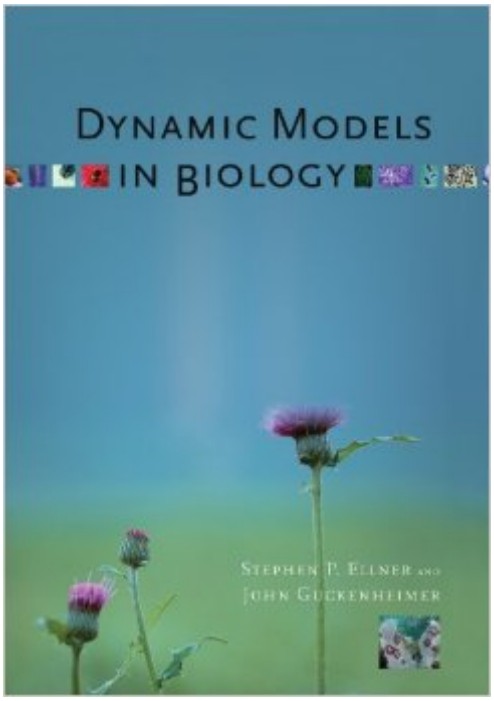
Dynamic Models In Biology



Synopsis

From controlling disease outbreaks to predicting heart attacks, dynamic models are increasingly crucial for understanding biological processes. Many universities are starting undergraduate programs in computational biology to introduce students to this rapidly growing field. In Dynamic Models in Biology, the first text on dynamic models specifically written for undergraduate students in the biological sciences, ecologist Stephen Ellner and mathematician John Guckenheimer teach students how to understand, build, and use dynamic models in biology. Developed from a course taught by Ellner and Guckenheimer at Cornell University, the book is organized around biological applications, with mathematics and computing developed through case studies at the molecular, cellular, and population levels. The authors cover both simple analytic models--the sort usually found in mathematical biology texts--and the complex computational models now used by both biologists and mathematicians. Linked to a Web site with computer-lab materials and exercises, Dynamic Models in Biology is a major new introduction to dynamic models for students in the biological sciences, mathematics, and engineering.

Book Information

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Customer Reviews

This is an excellent book for students or faculty interested in learning more about the current state of the art in modeling of biological systems. The authors make a great effort to keep the mathematical sophistication at a level that students (or faculty) who primarily have a biological background will still be able to follow in some detail. They are also able to suggest some of the exciting current areas of research and new areas for the future. All in all, well worth reading if you are interested in the topic of modeling of biological systems.

This book is excellent at describing the utility of models for ecologists. It describes the theory and application. Unlike many others, it also describes the limitations. It is written in such as way that it is useful for novices to experienced statisticians.

Although I found most of the chapters were not relevant to what I am doing, chapters 1;2;8;9 were right on the money. Really helped me in my PhD research.

The book is in good shape and it came on time. No pages ripped, no highlights, very nice.

(Lodish, Molecular Cell Biology) Feedback Control of Dynamic Systems (7th Edition) Learning PHP, MySQL, JavaScript, CSS & HTML5: A Step-by-Step Guide to Creating Dynamic Websites Learning PHP, MySQL, JavaScript, and CSS: A Step-by-Step Guide to Creating Dynamic Websites PHP 6 and MySQL 5 for Dynamic Web Sites: Visual QuickPro Guide