

Nonlinear Dynamics in Physiology

[Nonlinear Dynamics in Physiology 下载链接1](#)

著者:Mark Shelhamer

出版者:World Scientific Publishing Co Pte Ltd

出版时间:2006-12-6

装帧:Hardcover

isbn:9789812700292

This book provides a compilation of mathematical-computational tools that are used to analyze experimental data. The techniques presented are those that have been most widely and successfully applied to the analysis of physiological systems, and address issues such as randomness, determinism, dimension, and nonlinearity. In addition to bringing together the most useful methods, sufficient mathematical background is provided to enable non-specialists to understand and apply the computational techniques. Thus, the material will be useful to life-science investigators on several levels, from physiologists to bioengineer. Initial chapters present background material on dynamic systems, statistics, and linear system analysis. Each computational technique is demonstrated with examples drawn from physiology, and one chapter is dedicated to oculomotor control applications. Throughout the text, historical notes give a sense of the development of the field and provide a perspective on how the techniques were developed and where they might lead. The overall approach is based largely on the analysis of trajectories in the state space, with emphasis on time-delay reconstruction of state-space trajectories. The goal of the book is to enable readers to apply these methods to their own research.

作者介绍:

目录:

[Nonlinear Dynamics in Physiology 下载链接1](#)

标签

评论

[Nonlinear Dynamics in Physiology 下载链接1](#)

书评

[Nonlinear Dynamics in Physiology 下载链接1](#)