Mathematical Modeling of Biological Systems, Volume II

Epidemiology, Evolution and Ecology, Immunology, Neural Systems and the Brain, and Innovative Mathematical Methods

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This two-volume, interdisciplinary work is a unified presentation of a broad range of state-of-the-art topics in the rapidly growing field of mathematical modeling in the biological sciences. Highlighted throughout both works are mathematical and computational approaches to examine central problems in the life sciences, ranging from the organizational principles of individual cells to the dynamics of large populations.

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- Developmental Biology
- Biomedical Applications
- Data Analysis and Model Validation

Volume II examines a diverse range of subjects, including:

- Epidemiology
- Evolution and Ecology
- Immunology
- Neural Systems and the Brain
- Innovative Mathematical Methods and Education

Both volumes will be excellent reference texts for a broad audience of researchers, practitioners, and advanced students in this rapidly growing field at the intersection of applied mathematics, experimental biology and medicine, computational biology, biochemistry, computer science, and physics.

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