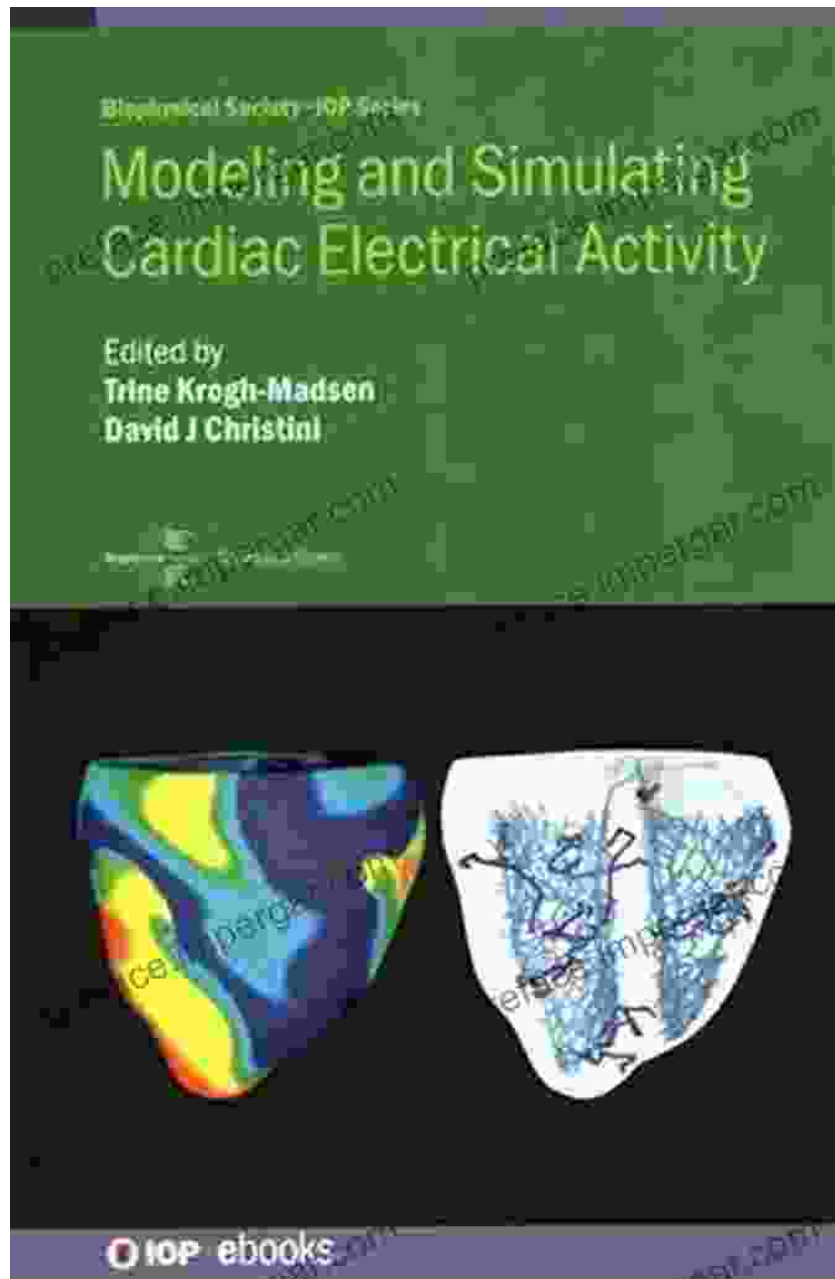


Delve into the Intricacies of Cardiac Electrical Activity: A Comprehensive Guide from the Biophysical Society



The human heart is an intricate organ that relies on coordinated electrical impulses to pump blood throughout the body. Understanding the underlying

mechanisms of cardiac electrical activity is crucial for diagnosing and treating cardiovascular diseases.



Modeling and Simulating Cardiac Electrical Activity (Biophysical Society-IOP Series) by Gerald 'CJ' Wilson

★★★★☆ 4.3 out of 5

Language : English
File size : 14146 KB
Text-to-Speech : Enabled
Enhanced typesetting : Enabled
Print length : 398 pages
Screen Reader : Supported



"Modeling and Simulating Cardiac Electrical Activity" is a comprehensive book published by the Biophysical Society that provides an in-depth exploration of this complex subject. This authoritative guide brings together the latest research and insights from leading experts in the field.

Key Features

This book offers a comprehensive overview of cardiac electrical activity, covering both theoretical and practical aspects:

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- **Biophysical Foundations:** Discusses the fundamental biophysics of cardiac cells and tissues.

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- **Mathematical Models:** Introduces various mathematical models used to simulate cardiac electrical activity, from simple to complex.

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- **Numerical Methods:** Explores numerical methods for solving these models efficiently and accurately.

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- **Experimental Techniques:** Reviews experimental techniques for studying cardiac electrical activity, including electrophysiology, optical mapping, and computational modeling.

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- **Clinical Applications:** Demonstrates how modeling and simulation can be used in clinical practice to diagnose and treat heart diseases.

Target Audience

"Modeling and Simulating Cardiac Electrical Activity" is an invaluable resource for:

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- **Cardiologists and Electrophysiologists:** Gain a deeper understanding of the electrical basis of heart function.

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- **Basic Scientists:** Explore the biophysical mechanisms underlying cardiac arrhythmias.

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- **Computational Scientists:** Learn advanced modeling techniques for simulating cardiac electrical activity.

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- **Students and Researchers:** Find comprehensive coverage of the latest developments in this field.

Authoritative Expertise

The book is authored by a team of renowned scientists from the Biophysical Society, including:

*

- **Peter Kohl:** Professor of Biomedical Engineering at Columbia University

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- **James C. Panfilov:** Professor of Mathematics at the University of Aberdeen

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- **Irina V. Gurevitch:** Director of Research at the University of Queensland

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- **Natalia A. Trayanova:** Director of Johns Hopkins Institute for Computational Medicine

Benefits of Purchasing

By purchasing "Modeling and Simulating Cardiac Electrical Activity," you will:

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- Gain a comprehensive understanding of the biophysical basis of cardiac electrical activity.

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- Learn about the latest mathematical models and numerical methods used to simulate this activity.

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- Explore experimental techniques for studying cardiac electrical activity.

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- Discover how modeling and simulation can be used to diagnose and treat heart diseases.

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- Stay up-to-date with the latest research and advancements in the field.

Book Details

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- Publisher: Biophysical Society

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- Publication Date: 2022

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- Pages: 450

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- Format: Hardcover

Call to Action

Invest in your knowledge of cardiac electrical activity with "Modeling and Simulating Cardiac Electrical Activity." Free Download your copy today and delve into the fascinating world of the human heart.



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