Fractional Calculus in Bioengineering

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Description

This book is written for bioengineers who wish to learn more about fractional calculus (integration and differentiation of arbitrary order) and the ways in which it can be used to solve biomedical problems. However, the text covers a wide range of topics (bioelectrodes, biomaterials, neural networks, etc.) that I hope will be of interest to other scientists and engineers as well as to bioengineers. Examples and exercises show that with only a small change in notation and perspective, fractional calculus extends many of the modeling capabilities of conventional calculus and integer order differential equations. By combining an "engineer's" approach to fractional calculus -- largely through using the Laplace transform -- with examples taken from a variety of biomedical applications, this book will help new students learn to use the techniques of fractional calculus. Students will be given a discounted price of $99.95. Please contact Begell House (203-456-6161) directly to receive this discount.

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