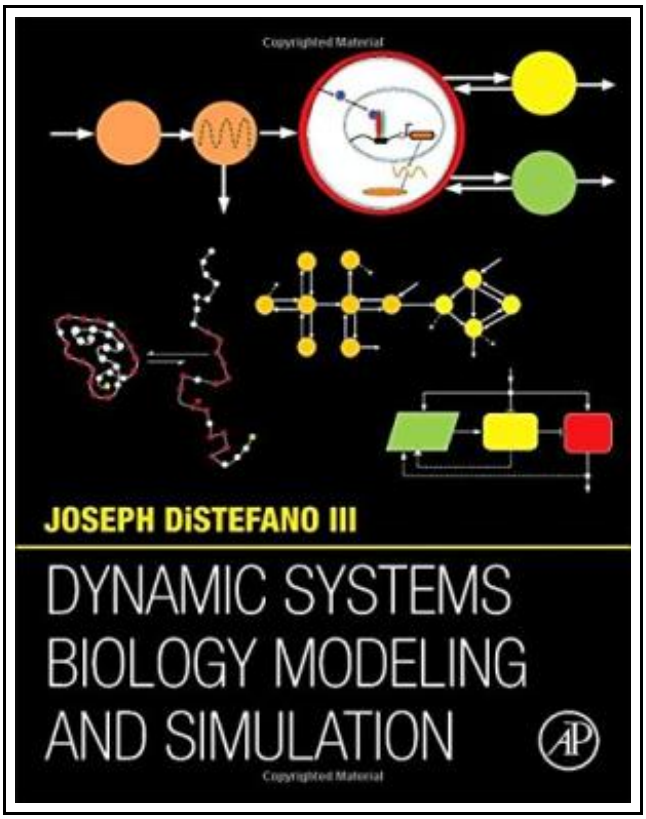
Dynamic Systems Biology Modeling and Simulation (Hardback)



Filesize: 2.7 MB

Reviews

This pdf is so gripping and intriguing. I could comprehended almost everything using this composed e ebook. You are going to like just how the article writer create this ebook.
(Miss Dakota Zulauf)

DYNAMIC SYSTEMS BIOLOGY MODELING AND SIMULATION (HARDBACK)

DOWNLOAD

Elsevier Science Publishing Co Inc, United States, 2015. Hardback. Book Condition: New. 278 x 222 mm. Language: English . Brand New Book. Dynamic Systems Biology Modeling and Simuation consolidates and unifies classical and contemporary multiscale methodologies for mathematical modeling and computer simulation of dynamic biological systems - from molecular/cellular, organ-system, on up to population levels. The book pedagogy is developed as a well-annotated, systematic tutorial - with clearly spelled-out and unified nomenclature - derived from the author s own modeling efforts, publications and teaching over half a century. Ambiguities in some concepts and tools are clarified and others are rendered more accessible and practical. The latter include novel qualitative theory and methodologies for recognizing dynamical signatures in data using structural (multicompartmental and network) models and graph theory; and analyzing structural and measurement (data) models for quantification feasibility. The level is basic-to-intermediate, with much emphasis on biomodeling from real biodata, for use in real applications. * Introductory coverage of core mathematical concepts such as linear and nonlinear differential and difference equations, Laplace transforms, linear algebra, probability, statistics and stochastics topics; PLUS .* The pertinent biology, biochemistry, biophysics or pharmacology for modeling are provided, to support understanding the amalgam of math modeling with life sciences.* Strong emphasis on quantifying as well as building and analyzing biomodels: includes methodology and computational tools for parameter identifiability and sensitivity analysis; parameter estimation from real data; model distinguishability and simplification; and practical bioexperiment design and optimization.* Companion website provides solutions and program code for examples and exercises using Matlab, Simulink, VisSim, SimBiology, SAAMII, AMIGO, Copasi and SBML-coded models.* A full set of PowerPoint slides are available from the author for teaching from his textbook. He uses them to teach a 10 week quarter upper division course at UCLA, which meets twice a week, so there are...

Read Dynamic Systems Biology Modeling and Simulation (Hardback) Online
Download PDF Dynamic Systems Biology Modeling and Simulation (Hardback)

Relevant PDFs

More Disney Solos for Kids (Mixed media product)

Hal Leonard Corporation, United States, 2004. Mixed media product. Book Condition: New. 300 x 222 mm. Language: English . Brand New Book. (Vocal Collection). As a follow-up to the hit book/audio combination Disney Solos for...

Read Book »

Bully, the Bullied, and the Not-So Innocent Bystander: From Preschool to High School and Beyond: Breaking the Cycle of Violence and Creating More Deeply Caring Communities

HarperCollins Publishers Inc, United States, 2016. Paperback. Book Condition: New. Reprint. 203 x 135 mm. Language: English . Brand New Book. An international bestseller, Barbara Coloroso s groundbreaking and trusted guide on bullying-including cyberbullying-arms parents...

Read Book »

ESL Stories for Preschool: Book 1

Createspace, United States, 2013. Paperback. Book Condition: New. 212 x 210 mm. Language: English . Brand New Book ***** Print on Demand *****.A big attractive colourful book for ESL beginners, aged 3 to 5. It...

Read Book »

I Am Reading: Nurturing Young Children s Meaning Making and Joyful Engagement with Any Book

Heinemann Educational Books, United States, 2015. Paperback. Book Condition: New. 234 x 185 mm. Language: English . Brand New Book. It s vital that we support young children s reading in ways that nurture healthy...

Read Book »

The Well-Trained Mind: A Guide to Classical Education at Home (Hardback)

WW Norton Co, United States, 2016. Hardback. Book Condition: New. 4th Revised edition. 244 x 165 mm. Language: English . Brand New Book. The Well-Trained Mind will instruct you, step by step, on how to...

Read Book »