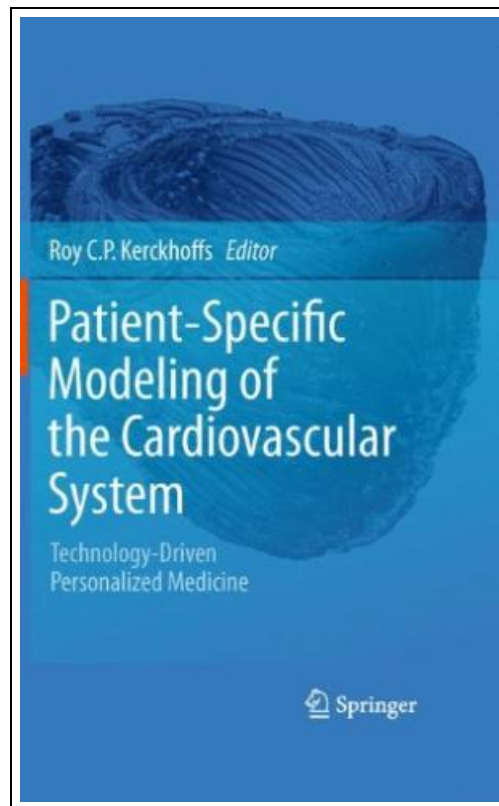


## Patient-specific Modeling of the Cardiovascular System: Technology-driven Personalized Medicine (Hardback)



Filesize: 6.67 MB

### **Reviews**



*This book may be worth buying. I have read and i am confident that i am going to planning to go through once more once again in the future. Its been written in an exceptionally easy way and it is simply soon after i finished reading this publication in which actually altered me, modify the way i believe.*

**(Faye Shanahan)**

## PATIENT-SPECIFIC MODELING OF THE CARDIOVASCULAR SYSTEM: TECHNOLOGY-DRIVEN PERSONALIZED MEDICINE (HARDBACK)



Springer-Verlag New York Inc., United States, 2010. Hardback. Book Condition: New. 234 x 157 mm. Language: English . Brand New Book. Peter Hunter Computational physiology for the cardiovascular system is entering a new and exciting phase of clinical application. Biophysically based models of the human heart and circulation, based on patient-specific anatomy but also informed by population atlases and incorporating a great deal of mechanistic understanding at the cell, tissue, and organ levels, offer the prospect of evidence-based diagnosis and treatment of cardiovascular disease. The clinical value of patient-specific modeling is well illustrated in application areas where model-based interpretation of clinical images allows a more precise analysis of disease processes than can otherwise be achieved. For example, Chap. 6 in this volume, by Speelman et al. , deals with the very difficult problem of trying to predict whether and when an abdominal aortic aneurysm might burst. This requires automated segmentation of the vascular geometry from magnetic resonance images and finite element analysis of wall stress using large deformation elasticity theory applied to the geometric model created from the segmentation. The time-varying normal and shear stress acting on the arterial wall is estimated from the arterial pressure and flow distributions. Thrombus formation is identified as a potentially important contributor to changed material properties of the arterial wall. Understanding how the wall adapts and remodels its material properties in the face of changes in both the stress loading and blood constituents associated with inflammatory processes (IL6, CRP, MMPs, etc.

 [Read Patient-specific Modeling of the Cardiovascular System: Technology-driven Personalized Medicine \(Hardback\) Online](#)  
 [Download PDF Patient-specific Modeling of the Cardiovascular System: Technology-driven Personalized Medicine \(Hardback\)](#)

## Related PDFs



**Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications .**

Rarebooksclub.com, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This historic book may have numerous typos and missing text. Purchasers can usually...

[Save PDF »](#)



**Games with Books : 28 of the Best Childrens Books and How to Use Them to Help Your Child Learn - From Preschool to Third Grade**

Book Condition: Brand New. Book Condition: Brand New.

[Save PDF »](#)



**Games with Books : Twenty-Eight of the Best Childrens Books and How to Use Them to Help Your Child Learn - from Preschool to Third Grade**

Book Condition: Brand New. Book Condition: Brand New.

[Save PDF »](#)



**History of the Town of Sutton Massachusetts from 1704 to 1876**

Createspace, United States, 2015. Paperback. Book Condition: New. annotated edition. 229 x 152 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This version of the History of the Town of Sutton Massachusetts...

[Save PDF »](#)



**Hitler's Exiles: Personal Stories of the Flight from Nazi Germany to America**

New Press. Hardcover. Book Condition: New. 1565843940 Never Read-12+ year old Hardcover book with dust jacket-may have light shelf or handling wear-has a price sticker or price written inside front or back cover-publishers mark-Good Copy-...

[Save PDF »](#)

**Environments for Outdoor Play: A Practical Guide to Making Space for Children (New edition)**

SAGE Publications Ltd. Paperback. Book Condition: new. BRAND NEW, Environments for Outdoor Play: A Practical Guide to Making Space for Children (New edition), Theresa Casey, 'Theresa's book is full of lots of inspiring, practical, 'how

[Read Document »](#)

**Read Write Inc. Phonics: Grey Set 7 Non-Fiction 2 a Flight to New York**

Oxford University Press, United Kingdom, 2016. Paperback. Book Condition: New. 213 x 98 mm. Language: N/A. Brand New Book. These decodable non-fiction books provide structured practice for children learning to read. Each set of books

[Read Document »](#)

**A Smarter Way to Learn JavaScript: The New Approach That Uses Technology to Cut Your Effort in Half**

Createspace, United States, 2014. Paperback. Book Condition: New. 251 x 178 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.The ultimate learn-by-doing approachWritten for beginners, useful for experienced developers who want to

[Read Document »](#)

**Some of My Best Friends Are Books : Guiding Gifted Readers from Preschool to High School**

Book Condition: Brand New. Book Condition: Brand New.

[Read Document »](#)

**It's Just a Date: How to Get 'em, How to Read 'em, and How to Rock 'em**

HarperCollins Publishers. Paperback. Book Condition: new. BRAND NEW, It's Just a Date: How to Get 'em, How to Read 'em, and How to Rock 'em, Greg Behrendt, Amiira Ruotola-Behrendt, A fabulous new guide to dating

[Read Document »](#)