## An Excellent Addition to Your Library!

Released: December 2012

# Methods, Models, and Computation for Medical Informatics

PREMIER REFERENCE SOURCE

### Methods, Models, and Computation for Medical Informatics



Aryya Gangopadhyay

ISBN: 9781466626539; © 2013; 345 pp.

Print: US \$245.00 | Perpetual: US \$370.00 | Print + Perpetual: US \$490.00

#### **Pre-pub Discount:\***

Print: US \$235.00 | Perpetual: US \$350.00
\* Pre-pub price is good through one month after publication date.

Aryya Gangopadhyay (Univeristy of Maryland Baltimore County (UMBC), USA)

Regular developments in technology continue to influence the medical and healthcare fields as they interact with information and computer sciences by methods of acquisition and the storage and retrieval of information.

**Methods, Models, and Computation for Medical Informatics** is a comprehensive collection of research on computational capabilities, prototypes, and algorithms, as well as application in the areas of nursing, clinical care, public health, biomedical research, and much more. This book provides a better understanding of the models and methods used in the field of medicine for researchers, practitioners, and medical professionals alike.

#### **Topics Covered:**

- Bioinformatics
- Computer-aided Annotation
- Evaluation of Clinical Knowledge
- Information and Computer Technology
- Knowledge Acquisition in Medicine
- Medical Image Data
- Medical Information Modeling and Sharing

**Market:** This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

Aryya Gangopadhyay is a Professor of Information Systems at University of Maryland Baltimore County (UMBC). He is also Associate Chair of Academic Affairs in the Department of Information Systems. Dr. Gangopadhyay has a PhD degree in Computer Information Systems from Rutgers University. He has published peer-reviewed several articles on spatial and spatio-temporal data mining, data mining in medicine, data stream mining, and navigating multi-dimensional databases. Dr. Gangopadhyay has also coauthored and edited three books, and he has received funding from NSF, US Department of Education, state and government agencies, and private industries.



Publishing Academic Excellence at the Pace of Technology Since 1988

#### Relevance of Mesh Dimension Optimization, Geometry Simplification and Discretization Accuracy in the Study of Mechanical Behaviour of Bare Metal Stents Gagliardi Mariacristina (University of Pisa, Italy) Chapter 2 A Framework for Multidimensional Real-Time Data Analysis: Catley Christina (University of Ontario Institute of Technology, Canada) Smith Kathy (University of Ontario Institute of Technology, Canada) McGregor Carolyn (University of Ontario Institute of Technology, Canada) James Andrew (The Hospital for Sick Children and University of Toronto, Canada.) Eklund J. Mikael (University of Ontario Institute of Technology, Canada) Subspace Discovery for Disease Management: Namayanja Josephine (University of Maryland, Baltimore County, USA) Janeja Vandana P. (University of Maryland, Baltimore County, USA) Chapter 4 Similarity Searching of Medical Image Data in Distributed Systems: Charisi Amalia (University of Patras, Greece) Korvesis Panagiotis (University of Patras, Greece) Megalooikonomou Vasileios (University of Patras, Greece, and Temple University, USA) Identifying Temporal Changes and Topics that Promote Growth Within Online Communities: Durant Kathleen T. (Silverlink Communications, USA) McCray Alexa T. (Harvard Medical School and Beth Israel Deaconess Medical Center, USA) Safran Charles (Harvard Medical School and Beth Israel Deaconess Medical Center, USA) Chapter 6 The Role of Information and Computer Technology for Children with Autism Spectrum Disorder and the Facial Expression Wonderland (FEW) Tseng Rung-Yu (Georgia Institute of Technology, USA) Yi-Luen Do Ellen (Georgia Institute of Technology, USA) Information Therapy (Ix) Service and Patients' Preference Gavgani Vahideh Zarea (Tabriz University of Medical Sciences, Iran) Chapter 8 Bring Out Your Data: Grissom Thomas E. (University of Maryland School of Medicine, USA) DuKatz Andrew (University of Maryland School of Medicine, USA) Kordylewski Hubert A. (Anesthesia Quality Institute, USA) Dutton Richard P. (University of Maryland School of Medicine, USA) Chapter 9 Portable Devices to Detect Directed Energy: Boyd Andrew D. (University of Illinois at Chicago, USA) Naiman Melissa (University of Illinois at Chicago, USA) Preston Richard (Sensing Strategies, USA) Stevenson Greer (University of Illinois at Chicago, USA) Valenta Annette L. (University of Illinois at Chicago, USA)

Chapter 10
Developing the Performance of Tiling Arrays
Abbas Mohamed Abdelhamid (King Khalid University, Saudi Arabia)

#### Chapter 11

Scalability of Piecewise Synonym Identification in Integration of SNOMED into the UMLS Huang Kuo-chuan (New Jersey Institute of Technology, USA)
Geller James (New Jersey Institute of Technology, USA)
Halper Michael (New Jersey Institute of Technology, USA)
Elhanan Gai (New Jersey Institute of Technology, USA)
Perl Yehoshua (New Jersey Institute of Technology, USA)

#### Chapter 12

Understanding Weight Change Behaviors through Online Social Networks
Ma Xiaoxiao (University of Massachusetts Lowell, USA)
Chen Guanling (University of Massachusetts Lowell, USA)
Xiao Juntao (Jiangsu HanWin Technology Co. Ltd., China)

#### Chapter 13

Social Credential-Based Role Recommendation and Patient Privacy Control in Medical Emergency
Chun Soon Ae (CUNY—College of Staten Island, USA)
Kwon Joon Hee (Kyonggi University, Korea)
Lee Haesung (Kyonggi University, Korea)

#### Chapter 14

Privacy Preserving Principal Component Analysis Clustering for Distributed Heterogeneous Gene Expression Datasets

Li Xin (Georgetown University Medical Center, USA)

#### Chapter 15

An Early Robot Architecture for Cancer Healing
Abbas Mohamed Abd Elhamid (King Khalid University, Saudi Arabia)

U	rde	er Y	our	. Co	opy	loc	lay!
---	-----	------	-----	------	-----	-----	------

Name:	☐ Enclosed is check payable to IGI Global in		
Organization:	US Dollars, drawn on a US-based bank		
Address:	☐ Credit Card ☐ Mastercard ☐ Visa ☐ Am. Express		
City, State, Zip:	3 or 4 Digit Security Code:		
Country:	Name on Card:		
Tel:	Account #:		
Fax:	Expiration Date:		
□ mail:			