

Contents

| | | |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | Medical Image Segmentation: A Brief Survey | 1 |
| | Ahmed Elnakib, Georgy Gimel'farb, Jasjit S. Suri, and Ayman El-Baz | |
| 2 | Cerebral White Matter Segmentation using Probabilistic Graph Cut Algorithm | 41 |
| | Mainak Sen, Ashish K. Rudra, Ananda S. Chowdhury, Ahmed Elnakib, and Ayman El-Baz | |
| 3 | A New Image-Based Framework for Analyzing Cine Images | 69 |
| | Fahmi Khalifa, Garth M. Beache, Georgy Gimel'farb, Guruprasad A. Giridharan, and Ayman El-Baz | |
| 4 | Medical Images Segmentation Using Learned Priors | 99 |
| | Ayman El-Baz and Georgy Gimel'farb | |
| 5 | Classification of Breast Mass in Mammography with an Improved Level Set Segmentation by Combining Morphological Features and Texture Features | 119 |
| | Jinshan Tang and Xiaoming Liu | |
| 6 | Segmentation and Skeletonization of 3D Contrast Enhanced Ultrasound Images for the Characterization of Single Thyroid Nodule | 137 |
| | Filippo Molinari, Alice Mantovani, Maurilio Deandrea, Paolo Limone, Rajendra Acharya U, Roberto Garberoglio, and Jasjit S. Suri | |
| 7 | Shape-Based Detection of Cortex Variability for More Accurate Discrimination Between Autistic and Normal Brains | 161 |
| | Matthew Nitzken, Manuel F. Casanova, Fahmi Khalifa, Guela Sokhadze, and Ayman El-Baz | |

| | | |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 8 | Surface Reconstruction and Geometric Modeling for Digital Prosthesis Design | 187 |
| | Luiz C.M. de Aquino, Gilson A. Giraldi, Paulo S.S. Rodrigues, Antônio Lopes A. Junior, Jaime S. Cardoso, and Jasjit S. Suri | |
| 9 | Medical Image Registration | 227 |
| | Usaf E. Aladl and Terry Peters | |
| 10 | Robust Image Registration Based on Learning Prior Appearance Model | 247 |
| | Ayman El-Baz and Georgy Gimel'farb | |
| 11 | Image Registration in Medical Imaging: Applications, Methods, and Clinical Evaluation | 263 |
| | Gerardo Hermosillo, Christophe Chef'd'hotel, K.-H. Herrmann, Guillaume Bousquet, Luca Bogoni, Kallol Chaudhuri, Dorothee R. Fischer, Christian Geppert, Rolf Janka, Arun Krishnan, Berthold Kiefer, Ines Krumbein, Werner Kaiser, Michael Middleton, Wanmei Ou, Jürgen R. Reichenbach, Marcos Salganicoff, Melanie Schmitt, Evelyn Wenkel, Susanne Wurdinger, and Li Zhang | |
| 12 | The Applications of Feature-Based Image Metamorphosis and Eyelashes Removal in the Investigations of Ocular Thermographic Sequences | 315 |
| | Jen Hong Tan, E.Y.K. Ng, Rajendra Acharya U, and Jasjit S. Suri | |
| 13 | Segmentation-Assisted Registration for Brain MR Images | 335 |
| | Jundong Liu | |
| | About the Editors | 355 |
| | Index | 357 |



<http://www.springer.com/978-1-4419-8203-2>

Multi Modality State-of-the-Art Medical Image
Segmentation and Registration Methodologies
Volume II

El-Baz, A.S.; Acharya U, R.; Laine, A.F.; Suri, J. (Eds.)
2011, X, 368 p., Hardcover
ISBN: 978-1-4419-8203-2