
Contents

Fundamentals of Chaos	
<i>Warwick Tucker</i>	1
Computational Methods for Rigorous Analysis of Chaotic Systems	
<i>Zbigniew Galias</i>	25
Fundamentals of Fractal Sets, Space-Filling Curves and Their Applications in Electronics and Communications	
<i>Maciej J. Ogorzałek</i>	53
Fractal Based Image Indexing and Retrieval	
<i>Maria De Marsico, Riccardo Distasi, Michele Nappi, Daniel Riccio</i>	73
Fractal Indexing in Multimodal Biometric Contexts	
<i>Maria De Marsico, Riccardo Distasi, Michele Nappi, Daniel Riccio</i>	93
Chaotic Communications with Autocorrelation Receiver: Modeling, Theory and Performance Limits	
<i>Géza Kolumbán, Tamás Krébesz</i>	121
Implementation of Low EMI Spread Spectrum Clock Generators Exploiting a Chaos-Based Jitter	
<i>Fabio Pareschi, Gianluca Setti, Sergio Callegari, Riccardo Rovatti</i>	145
Circuits and Systems for the Synthesis of Chaotic Signals in Engineering Applications	
<i>Fabio Pareschi, Sergio Callegari, Gianluca Setti, Riccardo Rovatti</i>	173
Chaos and Swarm Intelligence	
<i>Hongbo Liu, Ajith Abraham</i>	197

A Model of Chaotic Neural Networks and Its Applications to Parallel Distributed Processing	
<i>Kazuyuki Aihara</i>	213
Synchronization and Control Based Parameter Identification	
<i>Ulrich Parlitz, Dongchuan Yu</i>	227
Formation of Self-similar Traffic at Bottleneck Buffers of Computer Networks	
<i>Gábor Vattay, Attila Fekete</i>	251
Complex Behavior of Parallel-Connected DC/DC Converters from Nonlinear Viewpoint	
<i>Yuehui Huang, Chi K. Tse</i>	269
Chaos-Based Cryptography	
<i>José María Amigó</i>	291
Chaos Based Digital Watermarking	
<i>Aidan Mooney</i>	315
Image Encryption Using Chaotic Maps	
<i>Kwok-Wo Wong</i>	333
Chaos Based Generation of True Random Bits	
<i>Tommaso Addabbo, Ada Fort, Santina Rocchi, Valerio Vignoli</i>	355
Author Index	379