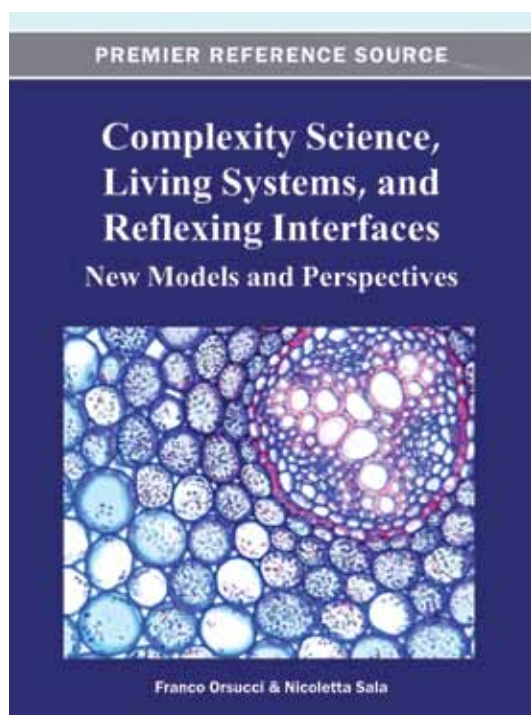


# An Excellent Addition to Your Library!

Released: September 2012

## Complexity Science, Living Systems, and Reflexing Interfaces: New Models and Perspectives



Franco Orsucci (University College London, UK & Institute for Complexity Studies, Italy) and Nicoletta Sala (University of Lugano, Switzerland)

There are new and important advancements in today's complexity theories in ICT and requires an extraordinary perspective on the interaction between living systems and information technologies. With human evolution and its continuous link with the development of new tools and environmental changes, technological advancements are paving the way for new evolutionary steps.

**Complexity Science, Living Systems, and Reflexing Interfaces: New Models and Perspectives** is a collection of research provided by academics and scholars aiming to introduce important advancements in areas such as artificial intelligence, evolutionary computation, neural networks, and much more. This scholarly piece will provide contributions that will define the line of development in complexity science.

### Topics Covered:

- Artificial Intelligence and Artificial Life
- Bio-inspired Computation and Machines
- Complexity and Fractal Geometry
- Complexity and ICT
- Evolutionary Algorithms in Economy
- Living Complexities
- Natural and Artificial Language
- Neural Networks in Biomedicine&nbsp;nbsp;
- Robotics
- Virtual Reality

ISBN: 9781466620773; © 2013; 466 pp.

Print: US \$195.00 | Perpetual: US \$295.00 | Print + Perpetual: US \$390.00

### Pre-pub Discount:\*

Print: US \$185.00 | Perpetual: US \$280.00

\* Pre-pub price is good through one month after publication date.

**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.

**Franco Orsucci** received his first degree in Medicine and second degree in Psychiatry at La Sapienza University in Rome (Italy). He has been a researcher at the Italian National Research Council. Now, he is professor of clinical psychology and psychiatry at the Catholic University and Gemelli University Hospital in Rome. He is also a research fellow at the London University College and founder and editor in chief of *Chaos and Complexity Letters International Journal of Dynamical System Research* (Nova Science, New York). His last published books are *Changing Mind, Transitions in Natural and Artificial Environments* (World Scientific, Singapore, 2002) and *Bioethics in Complexity* (Imperial College Press, London, 2004). He has also published more than 80 scientific articles on neuroscience and cognitive science.



www.igi-global.com

Publishing Academic Excellence  
at the Pace of Technology Since 1988

## Section 1: Living Systems and Information Technology

### Chapter 1

#### *Reflecting Interfaces*

Orsucci Franco (University College London, UK & Institute for Complexity Studies, Italy)

### Chapter 2

#### *Fractal Geometry as a Bridge between Realms*

Marks-Tarlow Terry (Private Practice, USA)

### Chapter 3

#### *Thinking Animals and Thinking Machines in Psychoanalysis and Beyond*

Scalzone Franco (Italian Psychoanalytical Society, Italy)

Zontini Gemma (Italian Psychoanalytical Society, Italy)

### Chapter 4

#### *Dynamical Disequilibrium, Transformation, and the Evolution and Development of Sustainable Worldviews*

Gabora Liane (University of British Columbia, Canada)

Merrifield Maegan (University of British Columbia, Canada)

### Chapter 5

#### *Exploring Structural and Dynamical Properties Microtubules by Means of Artificial Neural Networks*

Pizzi R. (Università degli Studi di Milano, Italy)

Fiorentini S. (Università degli Studi di Milano, Italy)

Strini G. (Università degli Studi di Milano, Italy)

Pregolato M. (Università degli Studi di Pavia, Italy)

### Chapter 6

#### *Neurofeedback:*

Vernon David (Canterbury Christ Church University, UK)

Dempster Tammy (Canterbury Christ Church University, UK)

### Chapter 7

#### *The Biotic Logic of Quantum Processes and Quantum Computation*

Sabelli Hector (Chicago Center for Creative Development, USA)

Kauffman Louis H. (University of Illinois at Chicago, USA)

## Section 2: Application Fields: From Networks to the Fractals

### Chapter 8

#### *Networks:*

Giuliani Alessandro (Istituto Superiore di Sanita, Italy)

### Chapter 9

#### *Complexity, Emergence and Molecular Diversity via Information Theory*

Torrens Francisco (Institut Universitari de Ciència Molecular, Universitat de València, Spain)

Castellano Gloria (Universidad Católica de Valencia San Vicente Mártir, Spain)

### Chapter 10

#### *Recurrence Indicators for the Estimation of Characteristic Size and Frequency of Spatial Patterns*

Mocenni Chiara (University of Siena, Italy)

Facchini Angelo (University of Siena, Italy)

### Chapter 11

#### *The Residence Time of the Water in Lake MAGGIORE. Through an Eulerian-Lagrangian Approach*

Castellano Leonardo (Matec Modelli Matematici, Italy)

Sala Nicoletta (Università della Svizzera Italiana, Switzerland)

Rolla Angelo (CNR – Institute for Ecosystem Study, Italy)

Ambrosetti Walter (CNR – Institute for Ecosystem Study, Italy)

### Chapter 12

#### *Possibility of Fractal Aesthetics*

Kocić Ljubiša M. (University of Niš, Serbia)

### Chapter 13

#### *Parametric Generator for Architectural and Urban 3D Objects*

Lunazzi Renato Saleri (École Nationale Supérieure d'Architecture de Lyon, France)

### Chapter 14

#### *Fractals, Computer Science and Beyond*

Sala Nicoletta (Università della Svizzera Italiana, Switzerland)

## Order Your Copy Today!

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Country: \_\_\_\_\_

Tel: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Enclosed is check payable to IGI Global in  
US Dollars, drawn on a US-based bank

Credit Card  Mastercard  Visa  Am. Express

3 or 4 Digit Security Code: \_\_\_\_\_

Name on Card: \_\_\_\_\_

Account #: \_\_\_\_\_

Expiration Date: \_\_\_\_\_