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Titolo	Towards a Post-Bertalanffy Systemics // edited by Gianfranco Minati, Mario Abram, Eliano Pessa
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Soggetti	Operations research Decision making System theory Physics Operations Research/Decision Theory Complex Systems Applications of Graph Theory and Complex Networks
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Quantum Effects in Linguistic Endeavors -- Cross-Frequency Modulation, Network Information Integration and Cognitive Performance in Complex Systems -- Testing Different Learning Strategies on a Simple Connectionist Model of Numerical Fact Retrieval -- Dynamical Systems and Automata -- Towards the Study of New Nuclear Energies -- Decomposing Dynamical Systems -- For a Topology of Dynamical Systems -- EPAS: Artificial Intelligent System for Assistance -- From Systemic Complexity to Systemic Simplicity: A New Networking Node Approach -- Formal Concept Analysis in Statistical Hypothesis Testing -- Emergence in Neural Network Models of Cognitive Processing -- Beyond Networks: Search for Relevant Subsets in Complex Systems -- From Elementary Pragmatic Model (EPM) to Evolutive Elementary Pragmatic Model (E2PM) -- Systemic Approach and Meaningful Complexity in Biology -- Changing Framework in Explaining Complex Dynamics: Convergences on Systemic Accounts From Two Different Case Studies -- Perceptions of Landscape.

Observed and Observing Systems -- Thinking Smart City with a Focus on Emerging Identity Elements -- Architecture and Systemics. In Praise of Roughness -- Emergences in Social Systems. Perceptual Factors, Affordances and Performances in Architecture -- Bank of Experiences. A Tool to Enhance Creativity, Enterprises and Countries -- ;Systems and Organizations. Theoretical Tools, Conceptual Distinctions and Epistemological Implications -- General System(s) Theory 2.0: A Brief Outline -- Phenomenology of Emergence in Music. Presentation of the Processes of Systemic Emergence in the Contrapuntal and Improvisational Aspects of Baroque Music -- Fractal Self-Similarity. From Geometric Structures to Dynamical Coherent Dynamics -- Enhancement in Mathematical Abilities: A System Approach -- The Effect of Written Approval on Pupils' Academic and Social Behavior: An Exploratory Study in a Northern Italian Middle School.

Sommario/riassunto

This book contains the proceedings of the Sixth National Conference of the Italian Systems Society. The title, Towards a post-Bertalanffy Systemics, aims to underline the need for Systemics and Systems Science to generalize theoretically concepts related to complexity (the great enemy of Bertalanffy Systemics). Hopefully this goal should be achieved by working in an inter-disciplinary and trans-disciplinary fashion, using systemic concepts arising from various disciplines and from the original, or Bertalanffy Systemics, as well. The interdisciplinary nature of the original Systemics and its power of generalization were given, overall, by the fact that the problems and solutions of one discipline become problems and solutions for another. Today, the modeling and interpretation of multidisciplinary approaches and representations makes easier to recognize these interconnections. The context, however, has changed dramatically. Of course, the challenge is still to find theoretical generalizations and applications, even where we have a lot of specificities, but we know very little on how to combine them. We cannot, however, simply replace the old with the new, but we must introduce strategies to recognize, represent, model and act on new levels, combining multiple representations, functions and emergence. In many disciplines this has been already done, and inevitably well, since targets and projects are well specified and oriented. The challenge is to do it for Systemics, with the vocations of cultural and theoretical generalization. Examples of new issues introduced by such theoretical disciplinary improvements, dealt with by many disciplines, include the study of mesoscopic or middle-way level, of multiple and dynamic coherence, of equivalence/non-equivalence, of fractality, of networks, of non-causality, of non-invasiveness, of non-prescribability, of non-separability, of quasi properties, of symmetry properties, of topological dynamics, as well as of quantum theories and concepts. The conference was devoted to identifying, discussing and understanding possible interrelationships of theoretical disciplinary improvements, recognized as having prospective fundamental roles for a new post-Bertalanffy Systemics. The latter should be able to deal with problems related to complexity in a generalized way. In this context the inter-disciplinarity should consists, for instance, in a disciplinary reformulation of problems, as from algebraic to geometrical, from military to political, from biological to chemical, while the trans-disciplinarity should be related to the study of such reformulations and their properties.
