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Nota di contenuto	CONTENTS; Introduction Carlos Gershenson, Diederik Aerts and Bruce Edmonds; References; Restricted Complexity, General Complexity Edgar Morin; 1. The three principles of the rejection of complexity by 'classical science'; 2. Complexity: A first breach: irreversibility; 3. Interaction Order/Disorder/Organization; 4. Chaos; 5. The emergence of the notion of complexity; 6. Generalized complexity; 7. System: It should be conceived that "any system is complex"; 8. Emergence of the notion of emergence; 9. The complexity of organization; 10. The self-eco-organization 11. The relationship between local and global12. Heraclitus: "live of death, die of life"; 13. On non-trivial machines; 14. To complexify the notion of chaos; 15. The need of contextualization; 16. The hologrammatic and dialogical principles; 17. For the sciences, a certain

number of consequences; 18. Two scientific revolutions introduced complexity de facto; 19. The insertion of science in History; 20. The link between science and philosophy; 21. Second epistemological rupture with restricted complexity; 22. The principle of ecology of action; 23. Creating "Institutes of fundamental culture"

24. I conclude: generalized complexity integrates restricted complexity

25. We should even apprehend the possibilities of metamorphosis; Complexity Science as an Aspect of the Complexity of Science Don C. Mikulecky; 1. INTRODUCTION; 1.1. The largest Model; 1.2. Why is the whole more than the sum of its parts?; 1.3. Causality and information: Science of method and science of content; 1.4. Which is generic, physics or biology?; 1.5. Analytic vs. synthetic models; 1.6. Fragmentability; 1.7. Computability; 2. SCIENCE AS A COMPLEX SYSTEM; 3. COMPLEXITY AS AN ATTRIBUTE OF NATURE

3.1. Hard Science is built on Cartesian Reductionism

3.2. The Newtonian paradigm is the modern manifestation of hard science; 3.3. Complexity is the result of the failure of the Newtonian Paradigm to be generic; 3.4. The way science is done: The modeling relation; 3.5. Complex systems and simple systems are disjoint categories that are related by the modeling relation; 4. THERMODYNAMIC REASONING AS A TRANSITION TO COMPLEXITY SCIENCE; 4.1. Classical or "equilibrium" thermodynamics and its limits; 4.2. Dissipation, friction, and irreversibility

4.3. Preserving the paradigm involved considering friction, irreversibility and dissipation

4.4. Framing the question in science: "Don't think about the whole system"; 4.5. Reductionism needs a particular kind of mathematics to accomplish its goals; 4.6. Topological reasoning in thermodynamics leads to powerful results; 5. Will science extend to the modeling of complex reality or will it be restricted to the limited domain of the largest model formalism it clings to?; References; On the Importance of a Certain Slowness Paul Cilliers; 1. Introduction; 2. Living in the Present

3. Complex Systems, Temporality and Memory

Sommario/riassunto

Scientific, technological, and cultural changes have always had an impact upon philosophy. They can force a change in the way we perceive the world, reveal new kinds of phenomena to be understood, and provide new ways of understanding phenomena. Complexity science, immersed in a culture of information, is having a diverse but particularly significant impact upon philosophy. Previous ideas do not necessarily sit comfortably with the new paradigm, resulting in new ideas or new interpretations of old ideas. In this unprecedented interdisciplinary volume, researchers from different backgrounds joi
