

|                         |   |
|-------------------------|---|
| 1. Record Nr.           | UNINA9910810892903321   |
| Autore                  | Kauffman Stuart A   |
| Titolo                  | The Origins of Order [[electronic resource] ] : Self-Organization and Selection in Evolution  |
| Pubbl/distr/stampa      | Oxford, : Oxford University Press, USA, 1993  |
| ISBN                    | 0-19-770175-2<br>0-19-982647-1  |
| Descrizione fisica      | 1 online resource (1575 p.)   |
| Disciplina              | 575<br>577  |
| Soggetti                | Evolution -- Philosophy<br>Life -- Origin<br>Molecular evolution<br>Self-organizing systems   |
| Lingua di pubblicazione | Inglese   |
| Formato                 | Materiale a stampa  |
| Livello bibliografico   | Monografia  |
| Note generali           | Description based upon print version of record.   |
| Nota di contenuto       | Cover Page; Title Page; Copyright Page; Dedication; Contents; Themes; Chapter 1. Conceptual Outline of Current Evolutionary Theory; The Emergence of the Neo-Darwinian Synthesis; Enlarging the Framework; Summary; Part I Adaptation on the Edge of Chaos; Chapter 2. The Structure of Rugged Fitness Landscapes; Chapter 3. Biological Implications of Rugged Fitness Landscapes; Chapter 4. The Structure of Adaptive Landscapes Underlying Protein Evolution; Chapter 5. Self-Organization and Adaptation in Complex Systems; Chapter 6. The Dynamics of Coevolving Systems; Part II The Crystallization of Life Chapter 7. The Origins of Life: A New ViewChapter 8. The Origin of a Connected Metabolism; Chapter 9. Hypercycles and Coding; Chapter 10. Random Grammars: Models of Functional Integration and Transformation; Part III Order and Ontogeny; Chapter 11. The Architecture of Genetic Regulatory Circuits and Its Evolution; Chapter 12. Differentiation: The Dynamical Behaviors of Genetic Regulatory Networks; Chapter 13. Selection for Cell Types; Chapter 14. Morphology, Maps, and the Spatial Ordering of Integrated Tissues; Epilogue; Bibliography; Index |

## Sommario/riassunto

Stuart Kauffman here presents a brilliant new paradigm for evolutionary biology, one that extends the basic concepts of Darwinian evolution to accommodate recent findings and perspectives from the fields of biology, physics, chemistry and mathematics. The book drives to the heart of the exciting debate on the origins of life and maintenance of order in complex biological systems. It focuses on the concept of self-organization: the spontaneous emergence of order that is widely observed throughout nature. Kauffman argues that self-organization plays an important role in the Darwinian process of n

---