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Nota di contenuto	What is complexity? Is it increasing? / Charles H. Lineweaver, Paul C.W. Davies, and Michael Ruse -- Directionality principles from cancer to cosmology / Paul C.W. Davies -- A simple treatment of complexity : cosmological entropic boundary conditions on increasing complexity / Charles H. Lineweaver -- Using complexity science to search for unity in the natural sciences / Eric J. Chaisson -- On the spontaneous generation of complexity in the universe / Seth Lloyd -- Emergent spatiotemporal complexity in field theory / Marcelo Gleiser -- Life : the final frontier for complexity? / Simon Conway Morris -- Evolution beyond Newton, Darwin, and entailing law : the origin of complexity in the evolving biosphere / Stuart A. Kauffman -- Emergent order in processes : the interplay of complexity, robustness, correlation, and

hierarchy in the biosphere / D. Eric Smith -- The inferential evolution of biological complexity : forgetting nature by learning to nurture / David C. Krakauer -- Information width : a way for the second law to increase complexity / David H. Wolpert -- Wrestling with biological complexity : from Darwin to Dawkins / Michael Ruse -- The role of generative entrenchment and robustness in the evolution of complexity / William C. Wimsatt -- On the plurality of complexity-producing mechanisms / Philip Clayton.

Sommario/riassunto

There is a widespread assumption that the universe in general, and life in particular, is 'getting more complex with time'. This book brings together a wide range of experts in science, philosophy and theology and unveils their joint effort in exploring this idea. They confront essential problems behind the theory of complexity and the role of life within it: what is complexity? When does it increase, and why? Is the universe evolving towards states of ever greater complexity and diversity? If so, what is the source of this universal enrichment? This book addresses those difficult questions, and offers a unique cross-disciplinary perspective on some of the most profound issues at the heart of science and philosophy. Readers will gain insights in complexity that reach deep into key areas of physics, biology, complexity science, philosophy and religion.
