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Nota di contenuto	Note to the Reader 1. The Simple Behavior of Complex Systems 1.1 Simplicity in Complex Systems 1.2 Enion Probability Analysis 1.3 Towards an Understanding of Enion Probabilities 2. The Physics of Complex Probability 2.1 Complex Probability Quantified 2.2 Microconstant Probability 2.3 The Interpretation of IC-Variable Distributions 2.4 Probabilistic Networks 2.5 Standard IC-Variables 2.6 Complex Probability and Probabilistic Laws 2.7 Effective and Critical IC-Values 2.A The Method of Arbitrary Functions 2.B More on the Tossed Coin 2.C Proofs 3. The Independence of Complex Probabilities 3.1 Stochastic Independence and Selection Rules 3.2 Probabilities of Composite Events 3.3 Causal Independence 3.4 Microconstancy and Independence 3.5 The Probabilistic Patterns Explained 3.6 Causally Coupled Experiments 3.7 Chains of Linked IC-Values 3.A Conditional Probability 3.B Proofs 4. The Simple Behavior of Complex Systems Explained 4.1 Representing Complex Systems 4.2 Enion Probabilities and Their Experiments 4.3 The Structure of Microdynamics 4.4 Microconstancy and Independence of Enion Probabilities 4.5 Independence of Microdynamic Probabilities 4.6 Aggregation of Enion Probabilities 4.7 Grand Conditions for Simple Macrolevel Behavior 4.8 Statistical Physics 4.9 Population Ecology 5. Implications for the Philosophy of the Higher-Level Sciences 5.1 Reduction 5.2 Higher-Level Laws 5.3 Causal Relevance 5.4 The Social Sciences 5.5 The Mathematics

Sommario/riassunto

Michael Strevens shows how simplicity can co-exist with the tangled interconnections within complex systems. By looking at the foundations of statistical reasoning about complex systems (gases, ecosystems and even social systems) he provides an understanding of how simplicity emerges from complexity.