Encyclopedia of Complexity and Systems Science

- Assembles for the first time the concepts and tools for analyzing complex systems in a wide range of fields
- Serves as an interdisciplinary reference linking fundamental concepts of mathematics and computational sciences to applications in the physical sciences, engineering, biomedicine, economics and the social sciences
- Edited by renowned encyclopedia editor Robert A. Meyers
- Appeals to audiences from undergraduate students to researchers and practitioners
- Reflects the real world by integrating complexity with the deterministic equations and concepts that define matter, energy, and the four forces identified in nature

Encyclopedia of Complexity and Systems Science provides an authoritative single source for understanding and applying the concepts of complexity theory together with the tools and measures for analyzing complex systems in all fields of science and engineering. The science and tools of complexity and systems science include theories of self-organization, complex systems, synergetics, dynamical systems, turbulence, catastrophes, instabilities, nonlinearity, stochastic processes, chaos, neural networks, cellular automata, adaptive systems, and genetic algorithms.