



2009, MCXX, 10398 p. In 14 volumes, not available separately.

SPRINGER  
REFERENCE

#### Print (Book)

▶ 3.999,99 € | £3,499.99 | \$4,999.99  
▶ \*4.279,99 € (D) | 4.399,99 € (A) |  
CHF 4'396.50

#### eReference

▶ 3.271,02 € | £2,999.99 | \$3,999.99  
▶ \*3.892,51 € (D) | 3.271,02 € (A) |  
CHF 3'595.00

#### Print + eReference

▶ 4.906,53 € | £4,499.99 | \$5,999.99  
▶ \*5.444,28 € (D) | 5.495,32 € (A) |  
CHF 5'392.50

Editor-in-chief: R.A. Meyers

### 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**
- ▶ **Reflects the real world by integrating complexity with the deterministic equations and concepts that define matter, energy, and the four forces identified in nature**
- ▶ **Benefits a broad audience: undergraduates, researchers and practitioners in mathematics and many related fields**

*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. Examples of near-term problems and major unknowns that can be approached through complexity and systems science include: The structure, history and future of the universe; the biological basis of consciousness; the integration of genomics, proteomics and bioinformatics as systems biology; human longevity limits; the limits of computing; sustainability of life on earth; predictability, dynamics and extent of earthquakes, hurricanes, tsunamis, and other natural disasters; the dynamics of turbulent flows; lasers or fluids in physics, microprocessor design; macromolecular assembly in chemistry and biophysics; brain functions in cognitive neuroscience; climate change; ecosystem management; traffic management; and business cycles. All these seemingly quite different kinds of structure formation have a number of important features and underlying structures in common. These deep structural similarities can be exploited to transfer analytical methods and understanding from one field to another. This unique work will extend the influence of complexity and system science to a much wider audience than has been possible to date.



Order online at [springer.com](http://springer.com) ▶ or for the Americas call (toll free) 1-800-SPRINGER ▶ or email us at: [customerservice@springer.com](mailto:customerservice@springer.com). ▶ For outside the Americas call +49 (0) 6221-345-4301 ▶ or email us at: [customerservice@springer.com](mailto:customerservice@springer.com).

The first € price and the £ and \$ price are net prices, subject to local VAT. Prices indicated with \* include VAT for books; the €(D) includes 7% for Germany, the €(A) includes 10% for Austria. Prices indicated with \*\* include VAT for electronic products; 19% for Germany, 20% for Austria. All prices exclusive of carriage charges. Prices and other details are subject to change without notice. All errors and omissions excepted.