



Fluctuations and Order : the New Synthesis /

Millonas, Mark

Springer US,
1996

Monografía

This book is the result of a growing realization that fluctuations play an active, even creative, role in nonequilibrium processes such as self-organization, pattern formation, and information processing and energy transduction in biological systems. In contrast to the general notion that fluctuations represent an undesirable "noise" in such systems - unimportant at best and undesirable or disruptive at worst - this book points toward a view in which fluctuations are fundamental aspects of the systems under study and frequently serve a constructive or stabilizing role in the dynamics. It includes contributions by prominent researchers in a great variety of disciplines, from theoretical cosmologists to experimental biologists, on such topics as stochastic resonance, noise in sensory nervous systems, mechanisms of intracellular transport, and kinetic theory of nonequilibrium systems

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Título: Fluctuations and Order the New Synthesis edited by Mark Millonas

Editorial: New York, NY Springer US 1996

Descripción física: 1 online resource (xx, 480 pages 136 illustrations)

Mención de serie: Institute for Nonlinear Science 1431-4673

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ISBN: 9781461239925 electronic bk.) 1461239923 electronic bk.) 9781461284635 1461284635

Materia: Physics Physics Physique physics. Physics.

Enlace a formato físico adicional: Print version 9781461284635

Punto acceso adicional serie-Título: Institute for Nonlinear Science

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