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<b>Titolo</b>	Nonextensive Statistical Mechanics and Its Applications / / edited by Sumiyoshi Abe, Yuko Okamoto
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<b>Collana</b>	Lecture Notes in Physics, , 0075-8450 ; ; 560
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<b>Soggetti</b>	Statistical physics Dynamics Thermodynamics Complex Systems Statistical Physics and Dynamical Systems
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<b>Nota di bibliografia</b>	Includes bibliographical references at the end of each chapters and index.
<b>Nota di contenuto</b>	Lectures on Nonextensive Statistical Mechanics -- I. Nonextensive Statistical Mechanics and Thermodynamics: Historical Background and Present Status -- II. Quantum Density Matrix Description of Nonextensive Systems -- III. Tsallis Theory, the Maximum Entropy Principle, and Evolution Equations -- IV. ComputationalMethods for the Simulation of Classical and Quantum Many Body Systems Arising from Nonextensive Thermostatistics -- Further Topics -- V. Correlation Induced by Nonextensivity and the Zeroth Law of Thermodynamics -- VI. Dynamic and Thermodynamic Stability of Nonextensive Systems -- VII. Generalized Simulated Annealing Algorithms Using Tsallis Statistics: Application to ±J Spin Glass Model -- VIII. Protein Folding Simulations by a Generalized-Ensemble Algorithm Based on Tsallis Statistics.
<b>Sommario/riassunto</b>	Nonextensive statistical mechanics is now a rapidly growing field and a new stream in the research of the foundations of statistical mechanics. This generalization of the well-known Boltzmann--Gibbs theory enables the study of systems with long-range interactions, long-term memories or multi-fractal structures. This book consists of a set of self-contained lectures and includes additional contributions where

some of the latest developments -- ranging from astro- to biophysics -- are covered. Addressing primarily graduate students and lecturers, this book will also be a useful reference for all researchers working in the field.

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