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Nota di contenuto	Introduction -- The insights into richness of nonlinear Schrodinger equation -- Nonlinear Dynamics of DNA Chain -- Nonlinear Dynamics of DNA Chain with Long-range Interactions -- Trajectories of DNA Kinks -- Conformational B-A-transition in the DNA Molecule Model.
Sommario/riassunto	This book highlights important aspects of nonlinear dynamics of biophysical nanosystems, such as DNA, alpha helix, and microtubules. It presents the differences between the linear and nonlinear models in these molecules and includes interesting chapters on Soliton dynamics of the DNA molecule. This book is meant not only for researchers but also for both graduate and undergraduate students. Chapters include derivations, detailed explanations, and exercises for students. Therefore, the book is convenient to be used as a textbook in suitable courses.