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Nota di contenuto	Metaheuristic Protein Structure Prediction-An Overview -- Related Works -- Continuous Landscape Analysis using Random Walk Algorithm -- Landscape Characterization and Algorithms Selection for the PSP Problem -- The Levy distributed Parameter Adaptive Metaheuristic Algorithm for Protein Structure Prediction -- Protein Structure Prediction using Improved Variants of Metaheuristic Algorithms -- Hybrid Metaheuristic Approach for Protein Structure Prediction -- Conclusions and Future Research.
Sommario/riassunto	This book introduces characteristic features of the protein structure prediction (PSP) problem. It focuses on systematic selection and improvement of the most appropriate metaheuristic algorithm to solve the problem based on a fitness landscape analysis, rather than on the nature of the problem, which was the focus of methodologies in the past. Protein structure prediction is concerned with the question of how

to determine the three-dimensional structure of a protein from its primary sequence. Recently a number of successful metaheuristic algorithms have been developed to determine the native structure, which plays an important role in medicine, drug design, and disease prediction. This interdisciplinary book consolidates the concepts most relevant to protein structure prediction (PSP) through global non-convex optimization. It is intended for graduate students from fields such as computer science, engineering, bioinformatics and as a reference for researchers and practitioners.