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Nota di contenuto	COMPUTATIONAL INTELLIGENCE AND PATTERN ANALYSIS IN BIOLOGICAL INFORMATICS; CONTENTS; Preface; Contributors; PART I INTRODUCTION; 1 Computational Intelligence: Foundations, Perspectives, and Recent Trends; 2 Fundamentals of Pattern Analysis: A Brief Overview; 3 Biological Informatics: Data, Tools, and Applications; PART II SEQUENCE ANALYSIS; 4 Promoter Recognition Using Neural Network Approaches; 5 Predicting microRNA Prostate Cancer Target Genes; PART III STRUCTURE ANALYSIS; 6 Structural Search in RNA Motif Databases; 7 Kernels on Protein Structures 8 Characterization of Conformational Patterns in Active and Inactive Forms of Kinases using Protein Blocks Approach 9 Kernel Function Applications in Cheminformatics; 10 In Silico Drug Design Using a Computational Intelligence Technique; PART IV MICROARRAY DATA ANALYSIS; 11 Integrated Differential Fuzzy Clustering for Analysis of Microarray Data; 12 Identifying Potential Gene Markers Using SVM

Classifier Ensemble; 13 Gene Microarray Data Analysis Using Parallel Point Symmetry-Based Clustering; PART V SYSTEMS BIOLOGY; 14 Techniques for Prioritization of Candidate Disease Genes
15 Prediction of Protein-Protein Interactions
16 Analyzing Topological Properties of Protein-Protein Interaction Networks: A Perspective Toward Systems Biology; Index; Wiley Series on Bioinformatics: Computational Techniques and Engineering

Sommario/riassunto

An invaluable tool in Bioinformatics, this unique volume provides both theoretical and experimental results, and describes basic principles of computational intelligence and pattern analysis while deepening the reader's understanding of the ways in which these principles can be used for analyzing biological data in an efficient manner. This book synthesizes current research in the integration of computational intelligence and pattern analysis techniques, either individually or in a hybridized manner. The purpose is to analyze biological data and enable extraction of more meaningful informati
