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Nota di contenuto	CONTENTS ; Committees ; Referees ; Preface ; Keynote Addresses ; Exploring the Ocean's Microbes: Sequencing the Seven Seas ; Don't Know Much About Philosophy: The Confusion Over Bio- Ontologies ; Invited Talks Biomedical Informatics Research Network (BIRN): Building a National Collaboratory for BioMedical and Brain Research Protein Network Comparative Genomics ; Systems Biology in Two Dimensions: Understanding and Engineering

Membranes as Dynamical Systems
; Bioinformatics at Microsoft Research
Movie Crunching in Biological Dynamic Imaging
Engineering Nucleic Acid-Based Molecular Sensors for Probing and
Programming Cellular Systems
; Reactome: A Knowledgebase of Biological Pathways
; Structural Bioinformatics
Effective Optimization Algorithms for Fragment-Assembly based
Protein Structure Prediction
Transmembrane Helix and Topology Prediction Using Hierarchical SVM
Classifiers and an Alternating Geometric Scoring Function
; Protein Fold Recognition Using the Gradient Boost Algorithm
A Graph-Based Automated NMR Backbone Resonance Sequential
Assignment A Data-
Driven Systematic Search Algorithm for Structure Determination of
Denatured or Disordered Proteins
; Multiple Structure Alignment by Optimal RMSD Implies that the
Average Structure is a Consensus
Identification of α -Helices from Low Resolution Protein Density Maps

Sommario/riassunto

This volume contains about 40 papers covering many of the latest developments in the fast-growing field of bioinformatics. The contributions span a wide range of topics, including computational genomics and genetics, protein function and computational proteomics, the transcriptome, structural bioinformatics, microarray data analysis, motif identification, biological pathways and systems, and biomedical applications. There are also abstracts from the keynote addresses and invited talks. The papers cover not only theoretical aspects of bioinformatics but also delve into the application of new
