Record Nr. UNINA9910783404803321 Information processing and living systems [[electronic resource] /] / **Titolo** editors, Vladimir B. Bajic, Tan Tin Wee Pubbl/distr/stampa London, : Imperial College Press Singapore; ; Hackensack, NJ, : Distributed by World Scientific Pub., c2005 **ISBN** 1-281-86690-3 9786611866907 1-86094-688-7 Descrizione fisica 1 online resource (799 p.) Collana Series on advances in bioinformatics and computational biology;; v. 2 BajicV. B (Vladimir B.) Altri autori (Persone) TanTin Wee Disciplina 570/.285 Soggetti **Bioinformatics** Information modeling Biologically-inspired computing Biology - Data processing Human information processing Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references. Nota di contenuto Preface: Contents: CHAPTER 1 A MULTI-DISCIPLINARY SURVEY OF BIOCOMPUTING: 1. MOLECULAR AND CELLULAR LEVELS*; CHAPTER 2 A MULTI-DISCIPLINARY SURVEY OF BIOCOMPUTING: 2. SYSTEMS AND **EVOLUTIONARY LEVELS, AND TECHNOLOGICAL APPLICATIONS***; CHAPTER 3 MODELS FOR COMPLEX EUKARYOTIC REGULATORY DNA SEQUENCES; CHAPTER 4 AN ALGORITHM FOR AB-INITIO DNA MOTIF DETECTION: CHAPTER 5 DETECTING MOLECULAR EVIDENCE OF

MULTI-DISCIPLINARY SURVEY OF BIOCOMPUTING: 2. SYSTEMS AND EVOLUTIONARY LEVELS, AND TECHNOLOGICAL APPLICATIONS*; CHAPTER 3 MODELS FOR COMPLEX EUKARYOTIC REGULATORY DNA SEQUENCES; CHAPTER 4 AN ALGORITHM FOR AB-INITIO DNA MOTIF DETECTION; CHAPTER 5 DETECTING MOLECULAR EVIDENCE OF POSITIVE DARWINIAN SELECTION; CHAPTER 6 MOLECULAR PHYLOGENETIC ANALYSIS: UNDERSTANDING GENOME EVOLUTION; CHAPTER 7 CONSTRUCTING BIOLOGICAL NETWORKS OF PROTEIN-PROTEIN INTERACTIONS CHAPTER 8 COMPUTATIONAL MODELLING OF GENE REGULATORY NETWORKSCHAPTER 9 OVERVIEW OF TEXT-MINING IN LIFE-SCIENCES; CHAPTER 10 INTEGRATED PROGNOSTIC PROFILES: COMBINING

CLINICAL AND GENE EXPRESSION INFORMATION THROUGH EVOLVING CONNECTIONIST APPROACH; CHAPTER 11 DATABASES ON GENE REGULATION; CHAPTER 12 ON THE SEARCH OF BETTER VALIDATION AND STATISTICAL METHODS IN MICROARRAY DATA ANALYSIS; CHAPTER 13 INFORMATION EXTRACTION FROM DYNAMIC BIOLOGICAL WEB SOURCES; CHAPTER 14 COMPUTER AIDED DESIGN OF SIGNALING NETWORKS; CHAPTER 15 ANALYSIS OF DNA SEQUENCES: HUNTING FOR GENES

CHAPTER 16 BIOLOGICAL DATABASES AND WEB SERVICES: METRICS FOR QUALITY

Sommario/riassunto

Information processing and information flow occur in the course of anorganism's development and throughout its lifespan. Organisms do notexist in isolation, but interact with each other constantly within acomplex ecosystem. The relationships between organisms, such as thosebetween prey or predator, host and parasite, and between matingpartners, are complex and multidimensional.