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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 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 NETWORKS CHAPTER 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 an organism's development and throughout its lifespan. Organisms do not exist in isolation, but interact with each other constantly within a complex ecosystem. The relationships between organisms, such as those between prey or predator, host and parasite, and between mating partners, are complex and multidimensional.