Record Nr. UNINA9910451542303321 Analysis of biological data [[electronic resource]]: a soft computing **Titolo** approach / / editors, Sanghamitra Bandyopadhyay, Ujiwal Maulik, Jason T.L. Wang Singapore; ; Hong Kong, : World Scientific, c2007 Pubbl/distr/stampa **ISBN** 1-281-91864-4 9786611918644 981-270-889-8 Descrizione fisica 1 online resource (352 p.) Science, engineering, and biology informatics;; v. 3 Collana Altri autori (Persone) BandyopadhyaySanghamitra <1968-> MaulikUjjwal WangJason T. L Disciplina 570.28563 Soggetti **Bioinformatics** Soft computing Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and index. Nota di bibliografia CONTENTS: Preface: Part I OVERVIEW: Chapter 1 Bioinformatics: Mining Nota di contenuto the Massive Data from High Throughput Genomics Experiments Haixu Tang and Sun Kim; 1 Introduction; 2 Recent Development of Classical Topics: 2.1 Sequence alignment: 2.2 Genome sequencing and fragment assembly; 2.3 Gene annotation; 2.4 RNA folding; 2.5 Motif finding; 2.6 Protein structure prediction; 3 Emerging Topics from New Genome Technologies; 3.1 Comparative genomics: beyond genome comparison; 3.2 Pathway reconstruction; 3.3 Microarray analysis; 3.4 Proteomics; 3.5 Protein-protein interaction; 4 Conclusion AcknowledgementReferences: Chapter 2 An Introduction to Soft Computing Amit Konar and Swagatam Das; 1 Classical Al and its Pitfalls; 2 What is Soft Computing?; 3 Fundamental Components of Soft Computing; 3.1 Fuzzy sets and fuzzy logic; 3.2 Neural networks; 3.3

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Sommario/riassunto

Bioinformatics, a field devoted to the interpretation and analysis of biological data using computational techniques, has evolved tremendously in recent years due to the explosive growth of biological information generated by the scientific community. Soft computing is a consortium of methodologies that work synergistically and provides, in one form or another, flexible information processing capabilities for handling real-life ambiguous situations. Several research articles dealing with the application of soft computing tools to bioinformatics have been published in the recent past; however,