

An expert review of recent developments in CI in biological informatics

In the field of biological informatics, new methods of data collection that gather huge amounts of data and produce new data types have spurred advanced methods of searching for useful regularities or patterns in these data sets. Of these methods, computational intelligence has found particular favor among researchers. This book synthesizes current research in the integration of computational intelligence and pattern analysis techniques.

Computational Intelligence and Pattern Analysis in Biological Informatics brings together research articles by active practitioners, reporting recent advances in integrating computational intelligence and pattern analysis techniques for analyzing biological data in order to extract more meaningful information and insights from them. It covers highly relevant topics, including rational drug design and the involvement of microRNAs in human diseases. The book:

- Presents a description of some of CI's important components, fundamental concepts in pattern analysis, and different issues in biological informatics
- Gives detailed descriptions of the different applications of computational intelligence and pattern analysis techniques to biological informatics
- Provides details on analysis of sequences, structures, and microarray data, as well as an examination of topics in systems biology

Packed with theoretical and experimental results, *Computational Intelligence and Pattern Analysis in Biological Informatics* deepens the understanding of the ways in which the basic principles of computational intelligence and pattern analysis can be used for analyzing biological data in an efficient manner. Graduate students and researchers in computer science, bioinformatics, computational and molecular biology, biochemistry, systems science, and information technology will find this unique volume a valuable tool.

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