DESCRIPTION

Genomics and bioinformatics play an increasingly important and transformative role in medicine, society and agriculture. The mapping of the human genome has revealed 35,000 or so genes which might code for more than one protein, resulting in 100,000 proteins for the humans alone. Since proteins are attractive targets for developing drugs, efforts are now underway to map sequences and assign functions to many novel proteins. This book takes the novel approach to cover both the sequence and structure analysis of proteins in one volume and from an algorithmic perspective.

Key features of the book include:

• Provides a comprehensive introduction to the analysis of protein sequence and structure analysis.

• Takes an algorithmic approach, relying on computational methods rather than theoretical.

• Provides an integrated presentation of theory, examples, exercises and applications.

• Includes coverage of both protein structure, and sequence, analysis.

• Accessible enough for biologists, yet rigorous enough for computer scientists and mathematicians.

• Supported by a Web site featuring exercises, solutions, images, and computer programs.

Visit this website for exercises with solutions, computer programs, errata and additional material:
ABOUT THE AUTHOR

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FEATURES

• Provides a comprehensive introduction to the analysis of protein sequences and structures.

• Provides an integrated presentation of methodology, examples, exercises and applications.

• Emphasises the algorithmic rather than mathematical aspects of the methods described.

• Covers comparison and alignment of protein sequences and structures as well as protein structure prediction focusing on threading approaches.

• Written in an accessible yet rigorous style, suitable for biologists, mathematicians and computer scientists alike.

• Suitable both for developers and users of bioinformatics tools.

• Supported by a Web site featuring exercises, solutions, images, and computer programs.

For additional product details, please visit https://www.wiley.com/en-us