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	Titolo	An introduction to computational biochemistry [[electronic resource] /] / C. Stan Tsai
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	Descrizione fisica	1 online resource (380 p.)
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	Soggetti	Biochemistry - Data processing
		Biochemistry - Computer simulation
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	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
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	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	AN INTRODUCTION TO COMPUTATIONAL BIOCHEMISTRY; CONTENTS; Preface; 1 INTRODUCTION; 1.1. Biochemistry: Studies of Life at the Molecular Level; 1.2. Computer Science and Computational Sciences; 1.3. Computational Biochemistry: Application of Computer Technology to Biochemistry; References; 2 BIOCHEMICAL DATA: ANALYSIS AND MANAGEMENT; 2.1. Statistical Analysis of Biochemical Data; 2.2. Biochemical Data Analysis with Spreadsheet Application; 2.3. Biochemical Data Management with Database Program; 2.4. Workshops; References; 3 BIOCHEMICAL EXPLORATION: INTERNET RESOURCES 3.1. Introduction to Internet3.2. Internet Resources of Biochemical Interest; 3.3. Database Retrieval; 3.4. Workshops; References; 4 MOLECULAR GRAPHICS: VISUALIZATION OF BIOMOLECULES; 4.1. Introduction to Computer Graphics; 4.2. Representation of Molecular Structures; 4.3. Drawing and Display of Molecular Structures; 4.4. Workshops; References; 5 BIOCHEMICAL COMPOUNDS: STRUCTURE

AND ANALYSIS; 5.1. Survey of Biomolecules; 5.2. Characterization of Biomolecular Structures; 5.3. Fitting and Search of Biomolecular Data and Information; 5.4. Workshops; References
6 DYNAMIC BIOCHEMISTRY: BIOMOLECULAR INTERACTIONS6.1. Biomacromolecule-Ligand Interactions; 6.2. Receptor Biochemistry and Signal Transduction; 6.3. Fitting of Binding Data and Search for Receptor Databases; 6.4. Workshops; References; 7 DYNAMIC BIOCHEMISTRY: ENZYME KINETICS; 7.1. Characterization of Enzymes; 7.2. Kinetics of Enzymatic Reactions; 7.3. Search and Analysis of Enzyme Data; 7.4. Workshops; References; 8 DYNAMIC BIOCHEMISTRY: METABOLIC SIMULATION; 8.1. Introduction to Metabolism; 8.2. Metabolic Control Analysis; 8.3. Metabolic Databases and Simulation; 8.4. Workshops; References
9 GENOMICS: NUCLEOTIDE SEQUENCES AND RECOMBINANT DNA9.1. Genome, DNA Sequence, and Transmission of Genetic Information; 9.2. Recombinant DNA Technology; 9.3. Nucleotide Sequence Analysis; 9.4. Workshops; References; 10 GENOMICS: GENE IDENTIFICATION; 10.1. Genome Information and Features; 10.2. Approaches to Gene Identification; 10.3. Gene Identification with Internet Resources; 10.4. Workshops; References; 11 PROTEOMICS: PROTEIN SEQUENCE ANALYSIS; 11.1. Protein Sequence: Information and Features; 11.2. Database Search and Sequence Alignment
11.3. Proteomic Analysis Using Internet Resources: Sequence and Alignment11.4. Workshops; References; 12 PROTEOMICS: PREDICTION OF PROTEIN STRUCTURES; 12.1. Prediction of Protein Secondary Structures from Sequences; 12.2. Protein Folding Problems and Functional Sites; 12.3. Proteomic Analysis Using Internet Resources: Structure and Function; 12.4. Workshops; References; 13 PHYLOGENETIC ANALYSIS; 13.1. Elements of Phylogeny; 13.2. Methods of Phylogenetic Analysis; 13.3. Application of Sequence Analyses in Phylogenetic Inference; 13.4. Workshops; References
14 MOLECULAR MODELING: MOLECULAR MECHANICS

| Sommario/riassunto | This comprehensive text offers a solid introduction to the biochemical principles and skills required for any researcher applying computational tools to practical problems in biochemistry. Each chapter includes an introduction to the topic, a review of the biological concepts involved, a discussion of the programming and applications used, key references, and problem sets and answers. Providing detailed coverage of biochemical structures, enzyme reactions, metabolic simulation, genomic and proteomic analyses, and molecular modeling, this is the perfect resource for students and researchers in |

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Autore	Exner George R.
Titolo	An Accompaniment to Higher Mathematics / / by George R. Exner
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 1996
ISBN	1-4612-3998-2
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Descrizione fisica	1 online resource (XVII, 200 p.)
Collana	Undergraduate Texts in Mathematics, , 2197-5604
Classificazione	00A05
Disciplina	511.3
Soggetti	Mathematical analysis Topology Logic, Symbolic and mathematical Analysis Mathematical Logic and Foundations
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Examples -- 1.1 Propaganda -- 1.2 Basic Examples for Definitions -- 1.3 Basic Examples for Theorems -- 1.4 Extended Examples -- 1.5 Notational Interlude -- 1.6 Examples Again: Standard Sources -- 1.7 Non-examples for Definitions -- 1.8 Non-examples for Theorems -- 1.9 Summary and More Propaganda -- 1.10 What Next? -- 2 Informal Language and Proof -- 2.1 Ordinary Language Clues -- 2.2 Real-Life Proofs vs. Rules of Thumb -- 2.3 Proof Forms for Implication -- 2.4 Two More Proof Forms -- 2.5 The Other Shoe, and Propaganda -- 3 Formal Language and Proof -- 3.1 Propaganda -- 3.2 Formal Language: Basics -- 3.3 Quantifiers -- 3.4 Finding Proofs from Structure -- 3.5 Summary, Propaganda, and What Next? -- 4 Laboratories -- 4.1 Lab I: Sets by Example -- 4.2 Lab II: Functions by Example -- 4.3 Lab III: Sets and Proof -- 4.4 Lab IV: Functions and Proof -- 4.5 Lab V: Function of Sets -- 4.6 Lab VI: Families of Sets -- A Theoretical Apologia -- B Hints -- References.
Sommario/riassunto	For Students Congratulations! You are about to take a course in mathematical proof. If you are nervous about the whole thing, this book is for you (if not, please read the second and third paragraphs in the introduction for professors following this, so you won't feel left out). The rumors are true; a first course in proof may be very hard

because you will have to do three things that are probably new to you: 1. Read mathematics independently. 2. Understand proofs on your own. :1. Discover and write your own proofs. This book is all about what to do if this list is threatening because you "never read your calculus book" or "can't do proofs. " Here's the good news: you must be good at mathematics or you wouldn't have gotten this far. Here's the bad news: what worked before may not work this time. Success may lie in improving or discarding many habits that were good enough once but aren't now. Let's see how we've gotten to a point at which someone could dare to imply that you have bad habits. l The typical elementary and high school mathematics education in the United States tends to teach students to have ineffective learning habits, 1 In the first paragraph, yet. xiv Introduction and we blush to admit college can be just as bad.